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IN THE

Supreme Court of the United States

OCTOBER TERM, 1994

STATE OF MISSOURI, *et al.*,
Petitioners,

v.

KALIMA JENKINS, *et al.*,
Respondents.

On Writ of Certiorari to the
United States Court of Appeals for the Eighth Circuit

JOINT APPENDIX
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APPENDIX 0

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

No. 77-0420-CV-W-4

KALIMA JENKINS, et al.,
Plaintiffs,

vs.

STATE OF MISSOURI, et al.,
Defendants.

ORDER

[Filed July 5, 1991]

Before the Court is the KCMSD's motion for approval of the desegregation plan for 1991-92. The KCMSD filed an amended motion and the State filed a response to the KCMSD's motion and amended motion. The KCMSD filed a reply to the State's response and filed a second motion for leave to amend its motion for approval of the desegregation plan for 1991-92. On June 10, 1991 the Court held a hearing on disputed issues for the 1991-92 desegregation plan. Parties filed post-hearing briefs on June 21, 1991.

The KCMSD moves this Court to enter an order approving its proposed desegregation plan for the 1991-92 school year. The KCMSD submits that it proposes only a modest one-year extension of its present desegregation programs with minimal necessary modifications. The proposal incorporates a number of adjustments some of which are based on enrollment driven formulas. In addition the KCMSD proposes two new initiatives and five magnet school program modifications based on the needs of magnet programs. The two new initiatives are a

proposal to improve security at secondary schools and to lengthen the school day at four magnet schools. The KCMSD proposes to continue the basic educational components of the remedy previously approved by the Court.

The State's position with regard to the proposed Year VII budget is that the Court should freeze all regular operating and desegregation programs at their current levels. The State also believes that no new programs should be approved for the KCMSD in light of the KCMSD's severe budget crisis. The State suggests that if some programs require more funding in Year VII, while other programs require less, the increased funding for those programs can come from budget transfers from those programs which have been reduced from Year VI. The State submitted specific objections to the KCMSD's proposed Year VII budget.

The KCMSD filed a reply to the State's response. The KCMSD noted that it considered "freezing" all programs at current levels when it developed the Year VII desegregation plan and budget. However, the KCMSD submits that the Court should not adopt the State's request for a freeze because it is not consistent with the purpose of the remedy. The KCMSD points out that the overall Year VII budget is an increase of approximately 3% over the 1990-91 approved budget.

The parties have agreed on the following components of the Year VII budget with the understandings stated. Components as to which there is no dispute are: reduced class size, full day kindergarten, extended day at traditional schools, summer school 1991, effective schools, base budgets, district communications, research and evaluation, interest expense, and the Westport computer technician.

Reduced Class Size

On July 25, 1988 this Court approved the class size reduction component for 1988-89 through 1990-91. The KCMSD has

reviewed planned enrollments for 1991-92 and has determined how many teachers it will need to meet the Court-ordered maximum class sizes. The budget reflecting these calculations was based on the assumption that base as well as them costs for the 1986-87 magnets will remain in the desegregation budget in 1990-91.

The State responds that if increase in the reduced class size budget is enrollment driven and provided that the KCMSD hired only the number of teachers that are needed to meet the court-ordered maximum class sizes, the State has no objection to the Court's continuation of this component. However, the State requests that the KCMSD file a report with the DMC by October 15, 1991 justifying the number of full-time equivalents funded under this component and listing actual enrollment in each school, teachers hired under this component and grade level for teachers hired.

The KCMSD responds that the type of detailed report requested by the State is best left to discussion among the parties and the DMC. The KCMSD believes it can work with the DMC and the parties to devise a report that will not be unduly burdensome and that can be delivered by a reasonably early date in the fall of 1991.

The KCMSD has presented a proposed method which it believes will more equitably allocate teacher costs between the operating and desegregation budgets. If such a method is approved, the budgetary estimate for reduced class size may have to be adjusted. The State reserves the right to contest such adjustments and the parties agree to brief this issue at the appropriate time.

1991-91 Budget	1991-92 Budget	KCMSD Obligation
$4,683,986	$5,627,985	$5,627,985

Summer School 1992

On July 25, 1988 this Court approved a summer school program for the summers of 1989-91. Last year the parties agreed to modify the 1991 summer school program. The KCMSD proposes to offer the same summer school program in 1992. The proposed budget does not include transportation. A request for transportation will be filed later on an actual cost basis.

The State responds that the KCMSD should provide an estimate of its transportation costs in order to enable to the State to comment on the proposed budget and asks that the Court require the KCMSD to present a complete budget to the Court.

The KCMSD states that it has no means of accurately discerning, until immediately before summer classes begin, the transportation related costs of the summer program. The KCMSD indicated that a very rough estimate of costs would be $610,281 — the amount budgeted in 1991 for transportation costs. Therefore, the State reserves the right to contest transportation costs.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$2,310,967	$1,744,296 (excluding transportation costs)	$436,075

Full Day Kindergarten

The KCMSD submits that full day kindergarten continues to be successful. The KCMSD requests a slightly increased level of funding based on increased enrollment for the 1991-92 school year.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$1,773,185	$1,837,094	$459,274

Extended Day at Traditional Schools

In 1988 this Court approved an extended day program in ten traditional elementary schools with a total budget of $600,000. This Court's July 5, 1989 Order approved an extended day program for six schools for 1989-90. The KCMSD proposes that extended day should be continued at the six schools.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$453,000	$453,000	$113,250

Effective Schools

In the July 5, 1988 Order the Court approved the funding requested by the KCMSD for the effective schools component for 1988-89 through 1990-91. The KCMSD proposes to continue the effective schools program under current DMC guidelines and procedures with the same level of funding per school. However, as a result of the anticipated change in the use of Southeast Annex, the budget requested is below that approved for 1990-91.

The State responds that there are no measures of reasonable progress in place which can evaluate the effectiveness of this program. Therefore, the KCMSD should be required to prove that increases in test scores are directly attributable to the effective schools funding. Dr. Marks requested one more year to show some kind of increase in test scores. Based on Dr. Marks' promise that test scores will go up or he will not request continuation of the program, the State does not object to this program being continued for one additional year. The State urges the Court to require the development of a definite set of standards by which the efficacy of effective schools funding will be measured over the next year.

The KCMSD states that instituting a more elaborate "evaluative criteria" process would take time and administrative re-

sources. The KCMSD believes it is more productive for this issue to proceed on an informal basis through the DMC rather than formalizing the process and creating new burdens for the program.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$7,350,000	$7,250,000	$1,812,500

Base Budgets

For 1990-91 the Court approved desegregation funding for the base costs of seven new magnet schools. The KCMSD proposes that base costs of these schools continue to be funded in this way.

The State does not object to this part of the Year VII desegregation plan as long as the FTE's hired are based on actual enrollments.

As with reduced class size, the KCMSD states that it is confident that working with the same parties and the DMC, it can devise a simple report that responds to the State's needs and deliver the report by an appropriate date in the fall.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$14,867,645	$13,308,424	$3,477,708

District Communications

In its July 25, 1988 Order the Court approved a three-year budget for the District Communications office. The KCMSD proposes to continue this program in Year VII.

The KCMSD resubmitted a proposal in which it agreed not to use desegregation funds to print an annual report. In addition the KCMSD agreed to freeze this budget at its 1990-91 level.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$31,125	$31,125	$7,781

Interest Expense

In its July 25, 1988 Order the Court found that the interest expense on the KCMSD's original bond issue for capital improvement costs was a desegregation expense. Therefore, the KCMSD has treated these expenses as part of its annual desegregation budgets and proposes to continue to do so in 1991-92.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$788,068	$593,503	$593,503

Research and Evaluation

In its July 25, 1988 order the Court approved the purchase of computer equipment for KCMSD research, evaluation and testing department. The Court also approved a repair and maintenance contract for such equipment in 1989-90 and 1990-91.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$5,414	$5,060	$1,265

Westport Computer Technician

1990-91 Budget	1991-92 Budget	KCMSD Obligation
	$65,113	$16,278

The total stipulated Year VII budget is $30,915,600. The KCMSD's obligation is $12,545,619.

The components of the Year VII budget which are disputed and which were the subject of the hearing are: early childhood education, 1986-87 magnets, security, lengthened school day, Central High School coaches, Montessori equipment, TTAP for paraprofessionals, resource teachers and home-school coordinator for J.A. Rogers, and reconsideration of computers for Richardson and Banneker schools. Components of the budget which were not discussed at the hearing but which are disputed

are: AAA Achievement, recruitment aide and five of six 1986-87 magnet schools.

Early Childhood Education Development Program

In its July 25, 1988 Order this Court approved the Early Childhood Education Development program requested by the KCMSD with several modifications. The KCMSD and State have jointly developed the Early Childhood program for 1991-92. However, the State has not agreed to an expansion of the program. The KCMSD proposes to offer the program to an additional 400 students next year. The KCMSD intends to locate the classrooms for this expansion at Pershing School. The program will provide screening for 4,464 children ages three to four; instructional services to 1,400 children in early learning center classrooms and parent education services to 5,000 families.

The State objects to the KCMSD's effort to add classrooms and teachers in light of the KCMSD's current budget crisis. Additional classrooms and teachers would add administrative expenses. In addition, the State points out that the budget request is only part of the funding requested by the KCMSD because staging costs have not been included. Staging costs would be approximately 1.1 million making the total increase 2.3 million and would bring the total cost of the early childhood program to approximately 5.9 million. The State asserts that the KCMSD should not attempt to provide expanded programs at this point.

The KCMSD replies that the increase requested is an enrollment driven expansion and is an ongoing obligation on the part of the State to remedy years of State-imposed segregation. The evidence presented at the hearing demonstrated that the Early Childhood program is valuable and successful in enhancing the achievement of developmentally delayed children. The State has also objected because of the cost of adding 20 teachers.

The KCMSD notes that to the extent the State objects to the costs of staging the expanded program at Pershing school, these matters will be fully argued through the briefing process on this matter and that particular issue is still before the DMC. The evidence at the hearing supported the need for an expansion in the Early Childhood program to accommodate the enrollment demand. Therefore the Court will approve the District's proposal to expand the Early Childhood program.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$3,598,491	$4,835,690	$1,208,923

Lincoln College Preparatory Teachers
(1986-87 Magnet Schools)

The KCMSD states the LCPA is a successful magnet school which includes an International Baccalaureate program. KCMSD presented evidence which shows that to maintain and improve Lincoln's success, five additional teachers are necessary to teach the academically rigorous courses and Advanced Placement courses. The DMC took no exception to this proposal "provided that meaningful increases in the admissions standards are instituted at Lincoln." Dr. Henley stated in her testimony that such an increase would be adopted for fall of 1992. The KCMSD submits that it currently does not have enough teachers to teach the intensive IB and AP classes, thus teachers must use a planning period to teach these classes. The KCMSD proposes the addition of two resource teachers to support the IB program. These teachers would provide academic guidance, counseling and mentoring to prepare students for the IB program and AP classes.

The State asserts that the mentoring teachers will serve to accommodate the increased admissions standards in serving students who are having academic difficulties. The State feels that the KCMSD should consider whether those students should

be demitted to enroll at other schools. Since Lincoln College Prep is designed to be a school for high achievers, there should not be a need for the proposed remedial help that the KCMSD is requesting. The State adds that the sole reason for adding teachers is to give currently employed teachers planning time, which the State considers to be an insufficient reason at this time of budget crisis.

The cost of adding five teachers is $233,017 and is included in the proposed budget for 1986-87 magnet schools.

Security

The KCMSD presented evidence that additional security is necessary to school safety and desegregative attractiveness. Captain Robert Livingston stated that there has been a 34% increase in personal security-related incidents and the KCMSD proposal is designed to address such incidents. The KCMSD proposes to add twenty-four site-based officers and four patrol officers. The proposed increase in school-based security officers would bring the average number of security officers up to four officers at the high school level and two officers at the middle school level. The goal is to deter personal security incidents by increasing security staff visibility and providing more comprehensive coverage of each school facility.

The KCMSD also proposes a pilot identification card system for Southeast High School which is designed to allow staff and administrators to quickly identify individuals involved in an incident to determine whether they belong in the facility. In addition, the KCMSD proposes hand-held metal detectors to provide for a quick and unintrusive weapon search which will deter students from carrying weapons into the school buildings.

The KCMSD has proposed a pilot closed-circuit TV system for Southwest High School. The CCTV system is designed to allow security personnel to more effectively monitor the build-

ing and promptly deploy personnel to potential security incidents as they develop The KCMSD anticipates that these pilot programs will be more cost-effective than adding additional security guards beyond those currently proposed by the KCMSD.

The State asserts that there was no showing that the KCMSD's security proposal is directed at any particular security problem which is related to prior segregation. The State emphasizes that the security measures proposed by the KCMSD are not vandal-proof and Mr. Livingston, witness for the KCMSD, admitted that the KCMSD had not considered whether it could possibly close certain entrances and exits to alleviate the need for additional security. Nor has the KCMSD pursued any arrangement with the Kansas City, Missouri Police Department to provide for further security needs. The State submits that, in this time of budgeting crisis, expanded and expensive pilot security programs which are of speculative value, should not be approved.

The Court will approve the District's security proposal. However, the Court notes that the obligation to provide security is the primary responsibility of the Kansas City, Missouri Police Department and the District is encouraged to request the Police Department to fulfill its obligation.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
N/A	$1,003,345	$250,836

Lengthened School Day at East, Southeast, Central and Northeast Middle Schools

The KCMSD proposes to lengthen the school day at four magnet schools to make the themes more educationally effective and desegregatively attractive. The KCMSD presented evidence that it was difficult to fit the required state, magnet theme and general elective curriculum classes into the standard seven-day period. In addition, lengthening the school day will allow

students to take traditional secondary electives such as advanced courses in music, typing and ROTC.

The State objects to lengthening the school day because of additional administrative costs and lack of a demonstrable interest in the proposal. This proposal would add 24 new teachers to the KCMSD for which the KCMSD has no plan to pay its share of the additional cost of this proposal. Furthermore, the State asserts that with more careful scheduling, students could take all of the courses needed to complete a program in a seven period day. The State argues that no showing was made that this expensive adjustment is necessary.

The Court will approve the District's request to lengthen the school day at East, Southeast, Central and Northeast Middle schools.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
N/A	$929,728	$2 32.432

Central High School Coaches

The KCMSD requests Court approval for additional coaches at Central High School, beyond those funded through the operating budget at other schools. The KCMSD states that it will not ordinarily employ a coach for a team sport based upon the request of a single or a few students; however, for those sports which require only a single participant, the KCMSD will critically evaluate the need for providing that student with a coach. The KCMSD specifically requests an off-season track and field coach.

The State asserts that there are substantial numbers of personnel already directed at teaching athletics at Central High School and they should be sufficient to provide any coaching that is needed. The State adds that it seems particularly inappropriate for the KCMSD to assert a demand for additional coaches unless

there is a substantial demand demonstrated by the KCMSD from a significant number of students who are interested in a particular activity.

The Court will deny the District's proposal for Central High School Coaches. However, the District may submit separate motions to the Court, upon a showing of need and demand, requesting coaches for specific sports.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
N/A	$213,105	$53,276

Montessori Equipment

The KCMSD presented evidence that it is necessary to teach six new classes that will be opening at Faxon and Harold Holliday Montessori magnets this fall. The KCMSD considers the Faxon and Holliday magnets to be immensely successful magnet programs that consistently meet the desegregation goals of the LRMP. Both schools are meeting the requirements for certification by the Association Montessori Internationale, the only internationally recognized American certification.

Montessori schools rely on special equipment instead of traditional textbooks. The equipment requested is necessary to implement the magnet theme in the six additional classrooms that open next year. All of the equipment requested is also required to meet the AMI accreditation standard. AMI certification is helpful in attracting children from private schools.

The Court will approve the District's proposal for Montessori equipment.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
N/A	$150,000	$37,500

Tuition Assistance for Paraprofessionals (TAP)

The KCMSD and AFT submitted evidence that the TAP program will help certify 30 qualified paraprofessionals, with a demonstrated commitment to the KCMSD, to teach in the District in accordance with the goals of the LRMP. The KCMSD and AFT suggest that there are qualified full-time paraprofessionals in the District who could become certified full-time teachers. Without tuition assistance, these individuals would find it difficult, if not impossible, to obtain a Missouri teaching certificate. The KCMSD states that enabling these individuals to become certified to teach will reduce the turnover rate within the District.

The State responds that the KCMSD proposes a cost of $63,000 for this program and that in addition to adding costs for which the KCMSD has no funds available, this new program proposal does not appear to lead to obtaining high quality teachers that the Court's salary increase of July 23, 1990 was directed to accomplish. The State objects to the low grade point average required for the TTAP. While the State acknowledges that this proposal could be worthwhile in a district with funds to spare, it is not a program which is necessary. Clearly, the State submits, if this were an operating budget program, it would be a candidate for budget cutting.

The Court will deny the District's request for Tuition Assistance for Paraprofessionals based on the reasons set forth by the State.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
N/A	$63,000	$15,750

J.A. Rogers Academy of Liberal Arts & Sciences

The KCMSD states that in order to support the liberal arts and sciences middle school magnet theme at J.A. Rogers Academy,

it has proposed the addition of two resource teachers to teach Philosophy and Geography. These two positions were identified in the planning process by the school's task force as necessary to fully implement the magnet theme. The KCMSD also proposes the continuation of the home school coordinator to provide academic support to students. The KCMSD states that the coordinator is important to provide students with extra academic support. The coordinator also serves as a liaison between students' families and the school to ensure that their personal, social and monetary needs are not interfering with the academic rigors of the program.

The State asserts that regular teachers could perform all of the functions of the proposed resource teachers, especially in helping students with their thesis. Regarding the home school coordinator, the State emphasizes that this position is designed for a social worker, not an academic teacher. The State maintains that the KCMSD should be cutting nonacademic personnel, rather than seeking to increase them.

The Court will approve the District's request for two resource teachers and continuation of the home-school coordinator.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
Teachers:		
N/A	$97,737	$24,434
Home-School Coordinator:		
$18,150	$18,150	$4,538

Banneker and Richardson Computer Equipment

The KCMSD submits that plaintiff's request for computer equipment at Banneker and Richardson computer magnet elementary schools is critical to implementation of the computer theme and to maintaining the desegregative attractiveness of these programs. Thus, the KCMSD supports plaintiff's motion

to alter or amend this Court's order of May 30, 1991 denying plaintiff's request for additional equipment. The KCMSD agrees with plaintiffs that the request is necessary to equip six additional classrooms. Also plaintiff's proposal for repair and maintenance funds are claimed to be critical to successful implementation of the magnet theme at Richardson. Plaintiffs request additional computers in the same amounts and configurations as the State agreed to last year.

The State notes that this proposal would cost $648,000 and maintains that there was no showing that additional computer equipment is absolutely necessary.

This request is before the Court on a motion to reconsider. The Court will reconsider its order and approve the software requests at Banneker and the repair and maintenance and software requests at Richardson.

Banneker Software	Total
$160,120	$290,120

Richardson Repair and Maintenance and Software

$130,000

1986-87 Magnets

The KCMSD indicates that the State has persisted in its argument that the base costs of Lincoln, Swinney, Volker, Cook, Marlborough and Hartman should be carried by the KCMSD operating budget and not the desegregation budget. The KCMSD submits that the Deloitte & Touche report did not conclude that the KCMSD operating budget has millions of dollars available to fund base costs of the 1986-87 magnets. As in Year VI, the KCMSD asserts that the full costs of these magnet schools should be approved as desegregation costs in Year VII with base costs to be a 100% KCMSD obligation and the theme and other

desegregation costs allocated 75% to the State and 25% to the KCMSD, with joint and several liability.

The State objects to permitting the KCMSD to continue to show the base costs of these schools as a desegregation obligation.

The KCMSD admits that this Court's order of October 18, 1989, November 2, 1989 and January 23, 1990 indicated that the base cost of these schools should be borne by the operating budget. However those orders were all stayed by the Court on February 1, 1990 pending a study of the KCMSD operating budget. The study did not indicate that the KCMSD has resources available from its operating budget to support the base budgets. The KCMSD suggests that the Court leave the stay in place and permit the costs to be carried in the desegregation budget, at least pending resolution of the operating budget funding issue.

The Court will approve the District's proposal for the 1986-87 magnets.

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$15,694,833	$14,920,610	$9,443,399

AAA Achievement

On July 25, 1988 this Court approved the AAA component requested by the KCMSD for 1988-89 through 1990-91 in order for the KCMSD to be able to provide sufficient library, counseling, art, music and physical education services to attain a AAA rating. For 1991-92 the KCMSD has calculated its AAA requirements according to the same formula used in the past.

The State asserts that the KCMSD ought to bear the full cost of maintenance of AAA status as an operating expense. The State maintains that it has fulfilled its initial obligations to fund the attainment of AAA status and has funded maintenance as

well. This, the State believes that it is appropriate to shift fiscal responsibility for maintenance of AAA back to the KCMSD entirely as an operating expense. Alternatively the State suggests that this Court shift the allocation to the KCMSD as a 100% desegregation liability. The State particularly objects to the KCMSD using desegregation funds to maintain certain libraries in excess of AAA standards. The State submits that in no event should it be required to pay more than $1,479,100 which is the appropriate cost for library maintenance.

In its reply the KCMSD notes that this Court has previously rejected the KCMSD's argument. The KCMSD also disagrees with the State's position that the AAA budget devoted to library resources is too high because this Court has previously approved AAA budgets built exactly the same way.

The State notes that the KCMSD stipulated that the count of some materials in its libraries is in excess of the minimum requirements for AAA, due partly to the use of AAA maintenance funds. The State's position is that AAA maintenance funds should not be used to exceed the minimum requirements for AAA libraries. AAA maintenance funds should not be used to allow the KCMSD to exceed the AAA library standards. Thus, the State argues that there is no basis to require more than the cost of reaching the minimum requirements for AAA libraries with any desegregation funds.

The Court agrees that the State should not be required to assist the District in exceeding AAA requirements for libraries. Therefore, the Court will approve $1,479,100 for library resources. The proposed budget for 1991-92 is as follows:

Schools:

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$4,611,139	$4,613,310	$1,153,328

Library Resources:

1990-91 Budget	1991-92 Budget	KCMSD Obligation
$1,958,250	$2,007,794	$2,007,794

Total proposed:

$6,569,389	$6,621,104	$3,161,122

The Total approved for AAA status is $6,092,410 and the KCMSD's obligation is $2,629,428.

Recruitment Aide

Plaintiffs have requested a magnet recruiting aide, a proposal which the KCMSD supports. This position would relieve recruiters of clerical tasks which would enable them to spend more time in direct contact with potential applicants and their parents. The KCMSD asserts that magnet school recruiting is one of the most critical functions if the KCMSD is to be desegregated. The State asserts that this is yet one more administrative position for which the KCMSD will not be able to pay its share of the cost.

Plaintiff's motion to reconsider plaintiffs' request for a recruitment aide will be denied.

In addition, the Court will add to the Year VII desegregation budget the seventeen resource teachers who the Court finds are academic personnel and who were cut as a result of the new administration's reorganization plan for the operating budget. The cost for the resource teachers is $763,657.

The total Year VII budget on disputed issues is $29,101,447. The total Year VII KCMSD obligation is $14,094,934. The total Year VII budget is $60,017,047. The KCMSD obligation is $26,640,553. The State's obligation is $33,376,494.

Accordingly it is hereby

ORDERED that this Court approves the stipulated Year VII budget items; and it is further

ORDERED that the KCMSD's proposal for the Early Childhood Education Development Program is granted; and it is further

ORDERED that the KCMSD's proposal to add five teachers at the Lincoln College Preparatory Academy is granted; and it is further

ORDERED that the KCMSD's security proposal is granted; and it is further

ORDERED that the KCMSD's lengthened school day proposal at East, Southeast, Central and Northeast Middle schools is granted; and it is further

ORDERED that the KCMSD's Central High School coaches proposal is denied; and it is further

ORDERED that the KCMSD's Montessori equipment proposal is granted; and it is further

ORDERED that the KCMSD's Tuition Assistance for Paraprofessionals proposal is denied; and it is further

ORDERED that the KCMSD's J.A. Rogers Academy of Liberal Arts and Sciences proposal to add two teachers and continue the home school coordinator is granted; and it is further

ORDERED that plaintiff's request for reconsideration of the Banneker and Richardson computer equipment proposal is granted as to software and repair and maintenance; and it is further

ORDERED that the KCMSD's Proposal for 1986-87 magnets is granted; and it is further

ORDERED that the KCMSD's Proposal for AAA Achievement is granted with the exception that the State is not required to assist the KCMSD in exceeding AAA requirements for libraries; and it is further

ORDERED that plaintiff's request for reconsideration of the Recruitment Aide is denied; and it is further

ORDERED that the seventeen resource teachers who were cut from the operating budget as a result of administrative reorganization are added to the Year VII desegregation budget.

/s/ Russell G. Clark
RUSSELL G. CLARK, JUDGE
UNITED STATES
DISTRICT COURT

Date: July 05, 1991

APPENDIX P

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 77-0420-CV-W-4

KALIMA JENKINS, *et al.*,
Plaintiffs,

v.

STATE OF MISSOURI, *et al.*,
Defendants.

JOINT STIPULATION OF ALL PARTIES CONCERNING KCMSD'S 1992-93 DESEGREGATION PLAN

All parties to this case — plaintiffs, the State of Missouri Defendants ("State"), Kansas City, Missouri School District ("KCMSD"), and the AFT Local Union 691 ("AFT") — hereby submit this Joint Stipulation regarding the KCMSD's Motion for Approval of Desegregation Plan for 1992-93 (filled March 25, 1992). These stipulations reflect the parties' attempt to narrow the factual issues in dispute at the hearing scheduled for May 27, 1992 and reflect the agreement of all the parties.

The State reserves its legal objections, based primarily on the Supreme Court's recent decision in the case of *Freeman v. Pitts*, 60 U.S.L.W. 4286 (March 31, 1992) as fully set forth in State's Response to KCMSD Motion for Approval of Desegregation Plan for 1992-93 (filed April 20, 1992).[1]

[1] AFT Local 691 supports KCMSD's Year VIII proposals, but with the following qualification; the AFT expressly reserves its arguments that the Court should provide no funding for any new desegregation programs or projects, nor any increased funding for existing desegregation programs or

(Footnote 1 continued on next page)

Nevertheless, these stipulations reflect the agreement of all the parties: 1) that with respect to a number of components, there is no other dispute between the parties and if the court rejects the State's argument based on *Freeman v. Pitts*, the parties agree to the budget and scope of the program as proposed;[2] 2) that with respect to one component, no factual issues exist and the legal issues in dispute will be submitted on the briefs; and 3) that certain components will be the subject of a hearing.

1. *Components as to which There is No Factual Dispute Concerning the Proposed Budget.*

The parties stipulate their agreement that with respect to the following components there is no factual dispute as to the budget and the scope of the program proposed, other than that outlined in the State's Response:

* AAA
* Reduced Class Size
* Early Childhood
* Full Day Kindergarten
* Base Budgets
* Interest Expense
* Summer School
* Maintenance

(Footnote 1 continued)

projects unless and until desegregation funding is provided to raise the salaries of KCMSD's teachers and other employees to adequate, competitive levels and that providing salary levels adequate to attract and retain the quality of personnel necessary to implement the existing desegregation programs should be a higher priority than any other new initiatives.

[2]The State, of course, reserves its right to appeal an adverse decision on its *Freeman v. Pitts* argument or any of the factual issues that are the subject of the hearing.

If these components are approved, the budgets for them will be as follows, with joint and several liability:[3]

	1992-93	KCMSD Obligation
AAA	$ 6,675,244	$ 2,846,175
Reduced Class Size	$18,975,675	$18,975,675
Early Childhood	$ 5,435,513	$ 1,170,333
Full Day Kindergarten	$ 2,087,727	$ 521,932
Base Budgets	$ 3,803,432	$ 950,858
Interest Expense	$ 593,503	$ 593,503
Summer School	$ 2,476,844	$ 619,212
Maintenance	$ 4,602,048	$ 4,602,048

2. *Additional Legal Issues Reserved by the Parties.*

The parties stipulate their agreement that the following component will not be the subject of an evidentiary hearing:

1986-87 Magnets - The parties agree to submit their dispute as to the base costs for the 1986-87 Magnets on the briefs.

3. *Components as to which There are Factual Disputes.*

The parties agree that at this point there remain factual disputes among them with respect to the following components that may properly be the subject of an evidentiary hearing:

[3]The stipulation of the parties with respect to Summer School and Early childhood is conditioned upon the KCMSD'S withdrawal of its request for multi-media equipment dedicated to the Summer School program and certain components of the Early Childhood program objected to by the State. The budgets in the chart above for these two components have been reduced accordingly and replace those originally requested by KCMSD.

* Extended Day
* Effective Schools
* Security
* High School Prep.
* District Communications
* Special Education Compliance

Additionally, factual disputes concerning the *Freeman v. Pitts* issues relating to the components addressed in Section 1 of this stipulation may arise and properly be the subject of testimony at the hearing.

All the parties stipulate and agree that this Joint Stipulation is intended to resolve potential factual disputes about certain components, with the purpose of narrowing the issues requiring a hearing. This Joint Stipulation is not an admission that the components as originally presented were in any way deficient or an admission that further arguments could not be adduced to oppose certain components on which the parties have agreed not to raise certain factual disputes. All parties agree that post-hearing briefs shall be submitted no later than June 5, 1992.

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APPENDIX Q

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 77-0420-CV-W-4

KALIMA JENKINS, *et al.*,
Plaintiffs,

v.

STATE OF MISSOURI, *et al.*,
Defendants.

KCMSD'S REPLY TO STATE'S RESPONSE TO KCMSD'S MOTION FOR APPROVAL OF DESEGREGATION PLAN FOR 1992-93

The State groundlessly opposes the entirety of the Kansas City, Missouri School District's ("KCMSD" or the "District") Desegregation Plan for 1992-93 based on its myopic view of the Supreme Court's recent decision in *Freeman v. Pitts*, 60 U.S.L.W. 4286 (March 31, 1992). The State's narrow focus misses the most fundamental tenents of school desegregation law recently reaffirmed by the Supreme Court both in *Freeman* a month ago and in *Board of Education of Oklahoma City Public Schools v. Dowell*, 498 U.S. __, 111 S. Ct. 630 (1991), only last term.

In both cases, the Supreme Court resoundingly reaffirmed its longstanding holding that defendants in school desegregation cases have an affirmative duty to eliminate all the vestiges of segregation to the extent practicable.[1] The State cannot bring

[1] *See Freeman*, 60 U.S.L.W. at 4291 ("duty . . . to take all steps necessary to eliminate the vestiges of the unconstitutional *de jure* system"), 4292 ("end purpose must be to remedy the violation"), 4293 ("District Court should address whether the vestiges of past discrimination have been eliminated to the extent practicable"), and 4294 ("curing the effects of specific violation"); *Dowell*, 111 S.Ct. at 638 ("whether the vestiges of past discrimination have been eliminated to the extent practicable").

itself even to allege that the "system wide *reduction* in student achievement" caused by State-mandated segregation in the KCMSD has been eliminated, *Jenkins v. Missouri*, 639 F. Supp. 19, 24 (W.D. Mo. 1985) (emphasis in original), *aff'd as modified*, 807 F.2d 657 (8th Cir.) (*en banc*), *cert. denied*, 484 U.S. 816 (1987), or that KCMSD's student enrollment is desegregated. *See, e.g., id.* at 27 29, 31 and 35 (various remedial components ordered will help in "attracting and maintaining non-minority student enrollment"). Because it has not alleged, and certainly cannot prove, that the vestiges of segregation in the areas of educational quality and student enrollment have been eliminated, its argument that the *Milliken II* components of this Court's remedy should be discontinued or phased out is meritless.

The objections to particular components raised in Section II of the State's Response are similarly groundless. The State's factual arguments are based almost entirely on misinterpretations of KCMSD evaluation data and misreadings of the Year VIII proposal. Moreover, they conflict with the essential thrust of the State's argument in Section I in significant respects and thereby demonstrate that the State's primary goal is to avoid its obligations as a constitutional violator.

I. The Supreme Court's Decisions in *Freeman v. Pitts* Provides No Basis for Discontinuing Integral Aspects of the Ongoing Remedy in this Case.

A. The State Cannot Meet its Burden of Proving, Nor Does it Even Allege, that the Vestiges of Segregation In the Areas of Educational Quality And Student Enrollment Have Been Eliminated as Far as Practicable in KCMSD.

The State's misplaced reliance on *Freeman v. Pitts* rests on several obvious misreadings of the Supreme Court's decision. The most blatant of these is the State's failure to recognize that elimination of the vestiges of segregation to the extent practi-

cable is the essential prerequisite to a declaration of unitary status with respect to *any* area of a school desegregation remedy. The State erroneously takes the Supreme Court's language in *Freeman* out of context to make its claim that "the ultimate object" of a desegregation case is "to return school districts to the control of local authorities." State's Response at 9. The State, however, ignores the first statement in that same paragraph that "*the Court's end purpose must be to remedy the violation. . . .*" 60 U.S.L.W. at 4292 (emphasis added).[2]

The Supreme Court, however, strongly reaffirmed in *Freeman* the duty and responsibility of defendants liable for intentional segregation "to take all steps necessary to eliminate the vestiges of the unconstitutional *de jure* system." 60 U.S.L.W., at 4291.[3] Reiterating the principles articulated in *Dowell*, the Court stated:

[2] The State's reading of *Freeman* also ignores the Supreme Court's reaffirmation of the importance of addressing educational quality issues in school desegregation remedies. The Supreme Court in *Freeman* ruled that, when a federal court considers whether to relinquish supervision over part of a school district's operation, "quality of education [is] a legitimate inquiry in determining [a school district's] compliance with the desegregation decree." 60 U.S.L.W. at 4293. The appropriateness of such educational relief has been clear since the Court's 1977 decision in *Milliken II* finding that in addition to correcting the racial isolation that results from prior segregation, defendants who are liable must correct "educational deficits" as well. *Milliken v. Bradley*, 433 U.S. 267 (1977) (*"Milliken II"*).

[3] The Court in *Freeman* authorized district courts to exercise their discretion to withdraw supervision from general areas of school district operations only where: (1) the vestiges of segregation in that area have been eliminated as far as practicable; (2) the defendants have completely and satisfactorily complied with the court's orders in that area; (3) continued judicial control in that area is not necessary to achieve compliance in other areas of school district operations; and (4) the defendants have demonstrated a good faith commitment to the court's decree and to their duties under the U.S. Constitution.

> The District Court should address itself to whether the Board ha[s] complied in good faith with the decree since it was entered, *and whether the vestiges of segregation have been eliminated to the extent practicable.*

Freeman, 60 U.S.L.W. at 4293 (quoting *Dowell*, 111 S. Ct. at 638) (emphasis added). Of course, the *Dowell* formulation simply restated the Supreme Court's repeated holdings over the years that *effectiveness* in eliminating vestiges of discrimination is the standard to be employed when assessing whether a school district, or aspects of its operations, should be declared unitary. *See Columbus Board of Education v. Penick*, 443 U.S. 449 (1979); *Keyes v. School District No. 1*, 413 U.S. 189 (1973); *Swann v. Charlotte-Mecklenburg Board of Education*, 402 U.S. 1 (1971).

The State thus ignores decades of consistent jurisprudence and asks this Court to relinquish its jurisdiction over thirteen of the fifteen remedial components contained in the District's Year VIII Desegregation Plan[4] without even *alleging*, let alone proving, that the vestiges of segregation found by this Court have been eliminated. As the *Freeman* Court stated, a defendant in a school desegregation case who seeks to end district court supervision, and thereby its own remedial obligations, "bears the burden of showing that any current [racial] imbalance [or other persistent effect of segregation] is not traceable, in a proximate way, to the prior violation." 60 U.S.L.W. at 4294. Accordingly, in order to support eliminating these components under *Freeman*, the State must prove that the deficits in educational outcomes due to segregation have been eliminated in the KCMSD, or that any remaining deficits are not traceable to the prior violation. Moreover, the State must show that KCMSD has achieved a desegregated student enrollment to the extent practi-

[4] The two remaining components, Interest Expense and High School Prep, the latter of which the State opposes on other grounds, constitute less than two percent of the District's proposed Year VIII budget.

cable. The State says nothing about what its proof will show on these issues. In fact, the evidence will show that the damage to educational achievement in the KCMSD that was caused by segregated schools persists, and that the programs ordered to date by the Court have begun to address the problem but have not yet fully succeeded. The evidence also will show that, while progress has been made in attracting a desegregated enrollment, particularly in magnet schools, more progress is necessary and achievable.

The State has not moved for unitary status on any component of the remedy or indicated that it can carry its burden of showing that unitariness has been achieved.[5] Instead, the State apparently is content to contend that merely because versions of these programs were implemented last year, the year before or for several years, they should be eliminated.[6] State's Response at 10. But the Supreme Court held early on in *Raney v. Board of Education*, 391 U.S. 553 (1968), and recently reaffirmed in both *Dowell* and *Freeman*, that a release of jurisdiction upon a

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[5] The Supreme Court in *Freeman* and *Dowell* plainly envisions a process in which defendants seeking a declaration of unitary status with respect to any general aspect of a school district's operations file a motion to this effect and bear the burden of proving that the vestiges of segregation have been eliminated to the extent practicable, that the defendants have complied with the court's orders and have demonstrated a good faith commitment to desegregation and that the criteria for incremental withdrawal of court supervision have been met. *See supra*, note 3.

[6] The State's occasional reference to the District's ostensible ability to choose which programs to implement if desegregation funding is eliminated is disingenuous. *See, e.g.*, State's Response at 10. The State is quite aware of the District's current financial position, and knows full well that the ruling it proposes — completely eliminating almost $60,000,000 in programs that form the bedrock for educational improvement and desegregation in the KCMSD — would decimate both the remedy in this case and the quality of education in the KCMSD. By contrast, the District proposes to continue these important remedial programs but to trim their budgets where practicable, resulting in a significant net decrease from the court-ordered Year VII budget.

showing merely that a school district adopted a remedial plan would "be inconsistent with the responsibility imposed on the District Courts by *Brown II*." *Raney*, 391 U.S. at 449 (citation omitted).

The fallacy of the State's legal argument is underscored by reference to the specific components at issue:

- The State essentially argues that because the District has achieved a AAA rating this year, funding for this component should be withdrawn next year. The State implicitly suggests that providing Art, Music, P.E., Library and Counseling services to its students is no longer important to improving their academic achievement or to attracting suburban and private school non-minority parents and students to the District.

- According to the State, because KCMSD has achieved and maintained acceptable class sizes since 1988-89, it now should fire hundred of teachers funded by the Reduction in Class Size component regardless of the educational needs of the plaintiff schoolchildren or the importance of reasonable class sizes to potential non-minority students and their parents.

- The State claims that a Full-Day Kindergarten program is not appropriate next year because the District offered it this year, wholly ignoring the educational deficits the program was designed to remedy.

- Likewise, the State ignores the continuing remedial purposes of the Extended Day, Summer School and Early Childhood Education programs.

- The State responds to the District's responsible proposal to reduce desegregation funding for the 1986-87 Magnets with a suggestion that they be eliminated altogether, despite their important contribution to de-

segregating the District's student enrollment and remedying educational deficits.

- The State explicitly admits that the Effective Schools program has not yet met its "desegregative goals" but claims that *Freeman* counsels its elimination regardless of the consequences to the eventual achievement of those goals or to education in the District.
- The State's proposal for Base Budgets would mean that new magnet schools, once implemented, would have to turn off the lights and the heat in the buildings and close down.
- Similarly, the State makes no argument that communicating with District patrons, providing secure school environments, maintaining facilities and affording equal educational opportunity to children with special needs are no longer important to the task of successfully remedying its constitutional violation in KCMSD, but instead argues that because the District does these things now, the support required to do them next year should be withdrawn and the Security, Maintenance and Special Education Compliance programs terminated.

These arguments are as troubling in fact as they are erroneous as a matter of law.

The State's failure to allege that the vestiges of segregation have been eliminated to the extent practicable is fatal to its entire misguided *Freeman* argument. The State cannot meet its burden and, therefore, does not even try. As a result, the arguments raised in Section I of its brief in support of its proposal to eviscerate the *Milliken II* plan in this case should be rejected summarily.

B. *Freeman* Does Not Suggest that Particular Programs Should Be Terminated As Soon As They Are Implemented.

The State errs in attempting to stretch the Supreme Court's holding in *Freeman* — that it is permissible for a district court to release a school district from supervision in certain broad areas of its school operations where the vestiges of segregation in those areas have been eliminated — to argue that a trial court may eliminate particular educational programs as soon as they are implemented. The Court's opinion in *Freeman*, however, suggests only that it may be appropriate for a district court in its discretion to release defendants from its jurisdiction in *general* areas of school operations, such as the six *Green* factors[7] (physical facilities, transportation, student assignments, faculty, staff, and extracurricular activities) or in the area of educational quality.

The State's argument that particular programs or schools, as opposed to general areas of school district operation, can be declared unitary incrementally not only misinterprets *Freeman*, but would lead to absurd results; if particular programs or schools were eliminated from the remedy upon implementation, no desegregation remedy could succeed. Pushed to its logical limits, the State's argument means that once a particular school or classroom implemented desegregation programs, it could be released from court jurisdiction. *Freeman* is quite clearly contrary to the State's extreme assertion.

There also is nothing in *Freeman* that would allow an individual school to be declared unitary, even where it has been

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[7]The Court in *Freeman* referred to these six areas of school operations, first articulated in *Green v. New Kent County School Board*, 377 U.S. 218 (1968), that a district court should evaluate to determine whether all the effects of prior discrimination have been eliminated and a school district therefore properly can be declared unitary.

successfully desegregated. The Court in *Freeman* directed district courts to examine success in desegregation with respect to the *Green* factors and the overall quality of education in the school system. These areas are far broader than an isolated examination of an individual school or program. Accordingly, the State's effort to terminate individual schools or programs because they supposedly are "implemented" in some sense must fail.

C. Under *Freeman*, Judicial Supervision Even of A General Area of School Operation Cannot Be Lifted If It Negatively Impacts Other Areas of the School System.

The State's suggestion that *Freeman* provides a basis for this Court to abandon particular programs as soon as they are implemented is also incorrect because it ignores the Supreme Court's insistence that district courts consider whether it is necessary or practicable to retain control of certain areas of school district operations where the vestiges of segregation have been eliminated, in order to ensure compliance in another area. 60 U.S.L.W. at 4293. It simply makes no sense to consider eliminating the educational components of the *Milliken II* relief ordered in this case where the vestiges of segregation remain, especially in the area of educational quality. The *Milliken II* programs form the essential foundation of the entire remedy. For example, the efficacy of the Long Range Magnet Plan would be undermined drastically if KCMSD class sizes increased substantially or the District lost AAA status as the State proposes. Thus, even if the vestiges of segregation in the area of educational quality had been eliminated — which they have not been and the State does not claim otherwise — *Freeman* does not provide a basis for abandoning the *Milliken II* programs because of their integral importance to desegregation in the related area of student assignments. *See, e.g.*, 639 F. Supp at 27, 29 , 31 and 35 (importance of remedial education components "to attracting [illegible] maintaining, non-minority student enrollment").

The State apparently fails to see the distinction between a school district which has been operating under continuing judicial oversight for twenty-three years (as the DeKalb County, Georgia School System had been in *Freeman*) and KCMSD, which is early in the process of implementing fully a desegregation remedy that has been ordered incrementally over a period of only seven years.

The State, however, does concede that the components of the Year VIII plan "have all been fully implemented," and it congratulates the District for the first time on its "consistent pattern of lawful conduct directed to eliminating earlier violations." State's Response at 11, 17. Considering the source of this commendation, it is a remarkable tribute to KCMSD and Superintendent Walter Marks. Only a year ago the State was accusing the District of "repetitious failures" in implementation, *see* Letter from Bart A. Matanic to Allen R. Snyder and Kevin J. Lanigan at 3 (March 28, 1991) (State's response to informal discovery requests), and arguing that the District's implementation of the remedy was so poor that KCMSD should be placed in receivership. *See* State's Response to KCMSD's Motion to Expedite Ruling, Initial Responses to its Motion for Funding Relief and Memorandum in Support of State's Motion to Require KCMSD to Show Cause Why It Should Not Be Placed in Receivership and for Further Relief (filed February 14, 1992) ("Receivership Motion").

Indeed, last year the State claimed the KCMSD's "failure of implementation" unduly prolongs the remedy, *see* Receivership Motion at 11, 13, but this year the State claims it is KCMSD's "full implementation" that somehow unfairly extends the State's remedial obligations. State's Response at 10. Both of these inconsistent claims are wrong; KCMSD's and the State's remedial obligations continue until their constitutional violation has been cured. The State simply fails to recognize this legal duty and factual imperative and thus fails to see the basic legal

principles and procedures reaffirmed and clarified by the supreme Court in *Freeman*; instead, the State grasps at any argument it can in another attempt to escape or minimize its remedial responsibilities regardless of the continuing vestiges of the constitutional violation in the KCMSD.

II. The State's Other Objections to Particular Components are Meritless.

Despite the State's candid admission that the District is doing a good job of implementing this Court's remedy and the Joint Stipulation agreed upon by the parties after extensive negotiations to narrow the factual issues in dispute,[8] the State nevertheless raises numerous factual objections to components of the District's Year VIII Plan. Because these are meritless, they all should be rejected.

For example, the State's repeated allegations that KCMSD has not evaluated the remedial components proposed, *see* State's Response at 1 and 20, and that the District seeks to expand them, *id.* at 10, are both demonstrably false. The KCMSD has done formal written evaluations on all of the desegregation educational programs that are susceptible to that type of analysis and has informally evaluated the other components, as the State is already aware. *See* Attachment 2 to State's Response 1-2 (Letter from Ruth Alderson to Diane Vaughn (March 30, 1992)). As a result of these evaluations, virtually every component has been modified in some respect. Overall, these modifications lead to a reduction of more than $800,000 in the proposed Year VIII budget compared to the court-approved Budget for Year VII.

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[8]The parties have agreed in the Joint Stipulation (filed May 11, 1992), to compromise on the factual objections raised by the State to the District's Summer School program and Early Childhood Education program. Therefore, this reply brief does not address the factual issues with respect to those components, which now have been resolved.

See Memorandum in Support of KCMSD Motion for Approval at 3, 28.[9]

The State's factual objections to particular programs also are meritless, reflect a poor understanding of the District's proposals, and are inconsistent with the State's arguments that the programs should be discontinued based on *Freeman*.

1. *Extended Day.*

The State argues in Section II of its brief that the Extended Day Program should be discontinued because it is not attracting non-minority students to the District. Thus, the State inconsistently argues in Section I of its brief that the program should be ended because it is successful and in Section II that it should be disgarded because it is unsuccessful.

The State's argument that the Extended Day Program is unsuccessful is plainly incorrect. The State quotes language from the Extended Day Program Evaluation out of context to argue that it is not desegregatively attractive. The Evaluation Report clearly indicates, however, that the Extended Day program *alone* cannot reasonably be expected to draw significant numbers of non-minority students to desegregate a racially isolated traditional school, although the report and other evidence at the hearing will show that it is *one* factor that is attractive to non-minority parents and students.

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[9]The amount of the reduction proposed by KCMSD has increased since the filing of its original Motion because of voluntary reductions in the proposed Early Childhood and Summer School budgets pursuant to the Joint Stipulation. The reduced budgets are shown in the Joint Stipulation attached as Exhibit A to this brief. The District intends to continue its efforts to reach agreement with the parties on other disputed components. The District also has been examining the issue of whether the cuts to the operating budget that it has recently made for 1992-93 suggest desegregation budget cuts. The District will be discussing this issue with the parties and hope to have it resolved before the Year VIII hearing.

More importantly, the purpose of the Extended Day Program at traditional schools was not solely to attract non-minority students but also to provide educational benefits. *See, e.g.*, 639 F. Supp at 32 ("to improve academic achievement"); July 5, 1989 Order at 5-6 (achievement data showed "success of the program as required by this Court's order of July 25, 1988"). As the evidence at the hearing will show, the same evaluation report cited by the State indicates that the program has had a substantial positive impact on the academic achievement of those students that participate in it. Thus, there is absolutely no evidence to support either of the State's inconsistent arguments that this program should be discontinued.

2. *Effective Schools.*

With respect to Effective Schools, the State again argues on the one hand that the Effective Schools program should be eliminated because it has been successfully implemented, while on the other hand suggesting that it be eliminated because it has not been successful enough. The KCMSD's far more reasonable approach, however, is to recognize both the program's important achievements and its shortcomings and to revise it in order to make it even more effective. The District does not propose "an entirely new and different plan," *see* State's Response at 25, but rather has modified the program in several important respects to help provide for all schools throughout the District the same success that has been achieved as some schools.

The State is flatly wrong in claiming that the new proposed plan departs from the "bottom up" structure of the original plan; indeed, the new plan will ensure more "meaningful participation by patrons, parents, teachers and administrators at the local school level," *see* June 14, 1985 Order at 21, than the program as currently implemented. The evidence at the hearing will explain that the new proposal will increase the level of central administration support and site-based accountability to ensure that the plans that percolate up from the bottom are both more appropriately designed, more closely related to the school's overall instructional efforts, and more effectively implemented.

The State also misreads the 1990-91 KCMSD Evaluation Report of the current Effective Schools program and, therefore, reaches wholly unjustified conclusions. For example, the State repeatedly cites grade-level data as classroom data, *see* State's Response at 24-25, understating the degree of success achieved. Moreover, the State fails to explain the significance of the "objectives" it claims more classrooms should have met. *Id.* It also cites an evaluation of the Extended Day program without attempting to explain its relevance to the Effective Schools program. *Id.* at 25. The State also makes the incomprehensible suggestion that there should be some meaningful correlation between "the number of reporting classrooms and the academic grade level represented by that classroom." *Id.* Even if such a correlation did exist, it is difficult to fathom its conceivable significance. Finally, the State argues that Superintendent Walter Marks promised improved test scores and failed to deliver, but the State fails to mention that 1992 test data is not yet available to support its contention. More importantly, what the State should acknowledge is that the Year VIII Effective Schools proposal itself represents an important follow through by Dr. Marks.

Similarly, the State's selective reading of the assessment component of the revised Effective Schools program completely misses the mark. The District does not seek to "replace" the focus of the Effective Schools program on math and reading, but rather to supplement it with measures which are more appropriately designed to measure school change over the short term. Student and teacher attendance, student discipline, school climate and progress towards desegregation goals are very relevant to improving math and reading proficiency, notwithstanding the State's assertions to the contrary. *See* State's Response at 26 n.6.

And, these measures will evaluate more accurately the efficacy of the Effective Schools component at individual schools.

None of the State's alleged reasons for opposing the Effective Schools program holds water. *See* State's Response at 27. The program, as the State admits in Section I of its brief, has not failed. The District proposes to modify the Effective Schools program in a way that fully comports with the educational philosophy of the original program and which will ensure that it is better implemented at all schools. Although the Effective Schools proposal is not a "new program," there certainly is no moratorium on redesigned efforts to eliminate the persistent effects of segregation in the KCMSD.

3. *1986-87 Magnets.*

The State's open attempt to escape or minimize its remedial obligations is nowhere more clear than with respect to the 1986-87 Magnets. Pursuant to the joint request of all the parties, *see* Joint Motion for Stay of January 23, 1990 Order (January 31, 1990), this Court, in its February 1, 1990 Order, stayed the effect of prior decisions finding that the base costs of the 1986-87 Magnets would no longer be recognized as a desegregation expense.[10] Twice since that Order this Court has ruled that the base costs of the 1986-87 Magnets should remain in the desegregation budget. *See* June 26, 1990 Order; July 5, 1991 Order. The State and Court are aware of the District's operating budget

[10] Under the February 1, 1990 Order, the Court held, pursuant to *all* the parties' wishes, that pending receipt of a study that determines whether there "are additional resources that could be made available from KCMSD's operating budget to support the funding" of the 1986-1987 Magnet base costs, the October 18, 1989, November 2, 1989, and January 23, 1990 orders of the Court would be stayed and "not deemed final, subject to implementation or execution, or ripe for appeal." *Id.* at 1-2. The Court, of course, has not lifted this stay because the Deloitte & Touche management audit that resulted from that order did not identify funds in the operating budget adequate to support these schools.

situation. The Deloitte & Touche management audit did not reveal operating budget cuts sufficient to support these schools; to the contrary, Deloitte & Touche suggested many investments on the operating side, to enhance the effectiveness of the District's operations. The 1986-87 Magnets have been an academic and desegregative success, and their continuation is a keystone to the success of the magnet school plan. Because funds from some other source are not available to support them, they should be considered as part of this plan.

4. *District Communications.*

The State offers no argument as to why this component should no longer be a desegregation expense. Informing the public about the progress of the KCMSD desegregation plan remains as important today as it was when the Court initiated its first remedial order. Indeed, in no small part because of the State's continued opposition to almost every aspect of the remedy, there is a great deal more negative publicity with respect to the desegregation plan today than when it was first ordered. Accordingly, this component plays a very important role in the success of the remedy and should be continued.

5. *Security.*

The State's position with respect to Security plainly disregards the facts. As the District informed the State at its meeting with State representatives on March 12, 1992, the Kansas City, Missouri Police Department has informed the District that it is unable to provide additional support at District schools. Similarly, the State simply ignores the information provided to it in the District's desegregation plan, through the DMC process and through informal discovery about the necessity for the seven additional security positions and the replacement of security vehicles. Ironically, while the DMC took exception to the District's security proposal because it did not go far enough, the State interposes a blanket objection to virtually every new aspect

of the District's security proposal. And, while the District proposes to provide a greater level of security for its students with a smaller budget, the State responds with sarcasm about the District's alleged self-congratulation, *see* State's Response at 30, and with disregard for the safety of students. *See* State's Response (arguing that since Security program has existed for several years it should be "released from supervision of this court," *i.e.*, terminated). As the evidence at the hearing will show, the security program is vital to the success of the remedy and should be continued.

6. *Special Education Compliance.*

The State argues that Special Education should receive no support through the Desegregation Plan, because the Special Education program is unrelated to desegregation, and because KCMSD specifically chose to exclude a Special Education component from its original remedial plan.

KCMSD made a determination in 1985 that no historical record existed in the Kansas City School District indicating that minority children suffered identifiable deprivation in the area of special educational services traceable to the prior dual school system. As a result, no Special Education component was included in the original remedial plan.

At no time subsequent to 1985 has KCMSD proposed that a specific special education program be included in the Desegregation Plan. Rather, as other components of the plan were implemented,l it became apparent that implementation of the plan was resulting in additional costs for students requiring special education services. Compliance with state and federal laws requires that KCMSD provide comparable "regular" services to handicapped students so that special services designed to address the handicapping condition will be an add-on to services the School District normally would supply to non-handicapped students. As funds spent on regular education

increased through the Desegregation Plan, comparability requirements mandated that additional services be provided to handicapped students. Indeed, the U.S. Office for Civil Rights ("OCR") recently required the District to offer assurances that it would provide comparable Art and Physical Education services for handicapped students at DeLano School to resolve compliance problems identified by OCR in these areas. *See* State's Response, Attachment 1. The State's argument to the contrary notwithstanding, *see* State's Response at 31, these special education services are required only because they are offered to regular students pursuant to the court-ordered desegregation plan; this comparability requirement formed the basis for the 1987 addition of funding categorized as "Special Education Compliance" as a part of the Desegregation Budget.

With implementation of the Long-Range Magnet Plan and the District's efforts to attract additional non-minority students to the District, special education costs have increased. Kindergarten enrollment is up as a result of recruitment efforts. *All* new kindergarten students receive special education screening; the desegregation recruitment success increases the need for these services. The District also had attracted, as a part of the desegregation effort, added enrollment through private school and interdistrict transfers. These students represent a cross-section of the normal student population, and a certain percentage of them naturally can be expected to become a part of the population referred for evaluation by the Department of Exceptional Education. Some are found to require special services of various types; others require only evaluation. In either case, added cost is incurred.

It is inevitable that an increase in the population base being served places an increased work load and increased costs on the Special Education service area. Even though a separate Special Education desegregation component has never been a part of the remedial plan, through evolution of other components of the

Desegregation Plan there has been an impact upon KCMSD Special Education costs. The funding which has been in effect since 1987 began and has continued as a recognition of those costs. The State has offered no basis for discontinuing it.

7. *High School Prep.*

The High School Prep program is a successful program which provides a creative learning environment for students who have suffered the effects of State-mandated segregation in KCMSD. While the State is correct that this Court did not approve desegregation funding for this program this year, *see* October 8, 1991 Order, it completely ignores the reason. *See* Order at 1-2 ("[T]he KCMSD's submission is untimely. The KCMSD should have submitted this program as part of the Year VII budget. . . ."). This program has been designed and presented in a timely fashion for 1992-93 school year, and the evidence at the hearing will show that it already has shown good results. Moreover, the educational problems that otherwise would lead many of the High School Prep students to drop out *are* vestiges of State-mandated segregation in this District, notwithstanding the State's assertion to the contrary. Rather than analyze the High School Prep program on the merits and attempt to determine whether it truly is an effective remedial program, the State just argues that any new program is *per se* unacceptable. This argument, like the State's conflicting claim that all the existing programs should be terminated, is unsupported and illogical.

CONCLUSION

Last year the State argued that the District was not adequately implementing the remedy in this case. This year, the State argues that because the District is fully implementing the *Milliken II* components of the remedy they should be terminated. The State also claims that if this Court rejects this contention, some of these same components should be disapproved because they are unsuccessful. All of these ever-shifting arguments, however,

should be rejected. They betray that the State's mission in this case is simply to get out any way it can, without dealing with the need to do the job of desegregation right and to pursue the task to its successful conclusion.

The District in fact has implemented the *Milliken II* components of the remedy in a responsible manner. These programs, along with other aspects of the remedy, are beginning to show positive results. Nevertheless, lingering vestiges of segregation remain in the KCMSD, and the District's serious efforts to modify and improve the various remedial components proposed for Year VIII are prudent and justified.

For the foregoing reasons and those set forth in KCMSD's Motion for Approval of Desegregation Plan for 1992-93 and Supporting Memorandum, and in light of the Joint Stipulation of the parties and the evidence to be presented at the hearing beginning in May 27, 1992, we respectfully suggest that the KCMSD Motion for Approval of the Desegregation Plan for 1992-93 should be approved and ordered by the Court.

Respectfully submitted,

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EXHIBIT A

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 77-0420-CV-W-4

KALIMA JENKINS, *et al.*,
Plaintiffs,

v.

STATE OF MISSOURI, *et al.*,
Defendants.

JOINT STIPULATION OF ALL PARTIES CONCERNING KCMSD'S 1992-93 DESEGREGATION PLAN

All parties to this case — plaintiffs, the State of Missouri Defendants ("State"), Kansas City, Missouri School District ("KCMSD"), and the AFT Local Union 691 ("AFT") — hereby submit this Joint Stipulation regarding the KCMSD's Motion for Approval of Desegregation Plan for 1992-93 (filled March 25, 1992). These stipulations reflect the parties' attempt to narrow the factual issues in dispute at the hearing scheduled for May 27, 1992 and reflect the agreement of all the parties.

The State reserves its legal objections, based primarily on the Supreme Court's recent decision in the case of *Freeman v. Pitts*, 60 U.S.L.W. 4286 (March 31, 1992) as fully set forth in State's Response to KCMSD Motion for Approval of Desegregation Plan for 1992-93 (filed April 20, 1992).[1]

[1] AFT Local 691 supports KCMSD's Year VIII proposals, but with the following qualification; the AFT expressly reserves its arguments that the Court should provide no funding for any new desegregation programs or projects, nor any increased funding for existing desegregation programs or

(Footnote 1 continued on next page)

Nevertheless, these stipulations reflect the agreement of all the parties: 1) that with respect to a number of components, there is no other dispute between the parties and if the court rejects the State's argument based on *Freeman v. Pitts*, the parties agree to the budget and scope of the program as proposed;[2] 2) that with respect to one component, no factual issues exist and the legal issues in dispute will be submitted on the briefs; and 3) that certain components will be the subject of a hearing.

1. *Components as to which There is No Factual Dispute Concerning the Proposed Budget.*

The parties stipulate their agreement that with respect to the following components there is no factual dispute as to the budget and the scope of the program proposed, other than that outlined in the State's Response:

* AAA
* Reduced Class Size
* Early Childhood
* Full Day Kindergarten
* Base Budgets
* Interest Expense
* Summer School
* Maintenance

(Footnote 1 continued)

projects unless and until desegregation funding is provided to raise the salaries of KCMSD's teachers and other employees to adequate, competitive levels and that providing salary levels adequate to attract and retain the quality of personnel necessary to implement the existing desegregation programs should be a higher priority than any other new initiatives.

[2]The State, of course, reserves its right to appeal an adverse decision on its *Freeman v. Pitts* argument or any of the factual issues that are the subject of the hearing.

If these components are approved, the budgets for them will be as follows, with joint and several liability:[3]

	1992-93	KCMSD Obligation
AAA	$ 6,675,244	$ 2,846,175
Reduced Class Size	$18,975,675	$18,975,675
Early Childhood	$ 5,435,513	$ 1,170,333
Full Day Kindergarten	$ 2,087,727	$ 521,932
Base Budgets	$ 3,803,432	$ 950,858
Interest Expense	$ 593,503	$ 593,503
Summer School	$ 2,476,844	$ 619,212
Maintenance	$ 4,602,048	$ 4,602,048

2. *Additional Legal Issues Reserved by the Parties.*

The parties stipulate their agreement that the following component will not be the subject of an evidentiary hearing:

1986-87 Magnets - The parties agree to submit their dispute as to the base costs for the 1986-87 Magnets on the briefs.

3. *Components as to which There are Factual Disputes.*

The parties agree that at this point there remain factual disputes among them with respect to the following components that may properly be the subject of an evidentiary hearing:

---

[3]The stipulation of the parties with respect to Summer School and Early childhood is conditioned upon the KCMSD'S withdrawal of its request for multi-media equipment dedicated to the Summer School program and certain components of the Early Childhood program objected to by the State. The budgets in the chart above for these two components have been reduced accordingly and replace those originally requested by KCMSD.

* Extended Day
* Effective Schools
* Security
* High School Prep.
* District Communications
* Special Education Compliance

Additionally, factual disputes concerning the *Freeman v. Pitts* issues relating to the components addressed in Section 1 of this stipulation may arise and properly be the subject of testimony at the hearing.

All the parties stipulate and agree that this Joint Stipulation is intended to resolve potential factual disputes about certain components, with the purpose of narrowing the issues requiring a hearing. This Joint Stipulation is not an admission that the components as originally presented were in any way deficient or an admission that further arguments could not be adduced to oppose certain components on which the parties have agreed not to raise certain factual disputes. All parties agree that post-hearing briefs shall be submitted no later than June 5, 1992.

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UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 77-0420-CV-W-4

KALIMA JENKINS, *et al.*,
Plaintiffs,

v.

STATE OF MISSOURI, *et al.*,
Defendants.

ORDER

Upon consideration of the Joint Stipulation of all parties concerning desegregation budget for Year VIII, filed by the plaintiffs, KCMSD, The State of Missouri defendants, and the AFT Local Union 691, and in consideration of the entire record herein, it is hereby

ORDERED that the Joint Stipulation is approved as submitted;

AND IT IS FURTHER ORDERED, upon review of the Joint Stipulation, that rulings on both the continuation of the components and their scope are served pending a hearing on this matter on May 27, 1992. Briefs will be received no later than June 5, 1992.

Russell G. Clark, District Judge
United States District Court

Dated: May __, 1992

APPENDIX R

Excerpts from Testimony of Dr. Walter Marks
(May 27, 1992)

* * *

[18]

Q. Would you state you full name for the record, please.

A. My name is Walter L. Marks.

Q. What is your employment?

A. Superintendent of Schools, Kansas City, Missouri.

Q. And how long have you been so employed?

A. Since March 1 of 1991.

* * *

[57]

* * *

Q. Is the KCMSD currently rated as a AAA School District, Dr. Marks?

A. Yes.

Q. How long has the District had its current AAA rating?

A. I am not positive of what year. It was prior to my coming to the District.

Q. So since coming to the District, you didn't bother to check when that AAA rating was first granted?

A. No.

Q. Dr. Marks, has the provision of AAA status enhanced the quality of educational opportunity in the KCMSD?

A. Yes.

* * *

[62]

* * *

Q. Well, if you prefer to use the words "positive impact" then, has the attainment of Reduced Class Size in the KCMSD had a positive impact on the quality of educational opportunity in the district?

A. In my opinion it has.

Q. Dr. Marks, do you understand the Full-Day Kindergarten of the KCMSD Segregation Plan to be fully implemented currently?

A. I do not consider the Full-Day Kindergarten to be fully implemented until we have achieved desegregation levels and achievement levels that are acceptable to the Court. It's part of the whole.

* * *

[63]

* * *

Q. And Dr. Marks, has the provision of a Full-Day Kindergarten enhanced the quality of educational opportunity within the District?

A. In my opinion and judgment, yes, it has.

* * *

[68]

Q. And has the Early Childhood Education Component enhanced the quality of educational opportunity within the KCMSD?

A. In my judgment it has.

* * *

[76]

* * *

Q. Dr. Marks, can you tell me of any component of the desegregation plan that has not enhanced the quality of the educational opportunity for the KCMSD students?

A. To my knowledge, the programs and the plans that are currently in place enhance the levels of desegregation and student achievement in this District. I know of none that are in place that I would not recommend at this point to go forward.

* * *

* * *

[24]

* * *

A. That's the, that was the last point I wanted to make, as this is a Desegregation Plan. And we have got to get desegregation levels. I believe we are making some progress in that. The last two years there has been minimal, in my judgment, minimal progress made.

We are seeing more progress potential now than we have seen in the past, more applications this year, larger numbers of applications. And it looks like we may have, and this is kind of before we have looked at all of the data and we have still got several months to go. But it looks like we are going to reach better desegregation levels in the schools next year than we have had in past years.

The progress is beginning to be made. And I think if you look at the national experts in the area of desegregation, the issue is just to be able to stop the flow of, in this case, white youngsters from the District, just to level that you and stop it is something that has not been done in very many urban settings. That has been done here, and I [25] think that's progress.

And we are beginning now to see the advantages of the plan in attracting back more white youngsters and we see schools where we are reaching that level, and I think getting into the community more, changing the image of the School District to a leadership School District, which we have worked very hard on this year is beginning to take hold. And people that will talk to us now and invite us into the living rooms probably 12 months ago wouldn't have done that.

So I believe we are on the verge of moving ahead with greater stride than we have in the last couple of years, even though some progress has been made. We must remember that

progress is just stopping the exodus, getting a flat table to work from, and that has been accomplished in the School District.

* * *

[46]

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Q. Dr. Marks, I hate to let responding to Mr. Fields' comments this morning sort of take over the agenda here, but while I have you here, I think it is important to have you address one last issue that Mr. Fields suggested. He suggested that perhaps the time has come for, and this has been suggested in the State's brief as well, for the Court to terminate desegregation funding and support for the programs contained in the District's Year VIII plan.

What would happen to these programs hypothetically if all of the Court approval and support that follows it were to terminate for this fall, would the programs be able to be [47] implemented by the District?

A. Well, of course not. I think it's pretty obvious that across this state operating budgets and deseg, you know, are really having great difficulty making it. We have tried here to get our operating budget in shape, and we have to cut $10 million out of the operating budget because of reduction in revenue both locally and at the state level to just balance that budget, because we have got to keep the operating budget balanced.

We are having great difficulties just maintaining the School District as it is, as most school districts in the state are having. People fail to realize that we have an operating budget we have got to keep balanced also. So I don't think they would, you know, I see absolutely no way that we could continue these programs if we did not have funding as it is set out in this document.

* * *

[63]

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Q. Dr. Marks, do you understand the Court orders in this case to mandate that a particular desegregation ratio needs to be reached before Full-Day Kindergarten can be considered fully implemented?

A. No, I do not.

Q. Do you understand the Court orders in this case to mandate a particular level of student achievement needs to be reached before the Full-Day Kindergarten Component can be considered fully implemented?

A. No.

* * *

[73]

* * *

Q. Dr. Marks, you don't consider any component of the desegregation plan to be fully implemented unless, among other things, the District schools have reached a ratio of 60 percent white and 40 percent minority; isn't that correct?

A. What we are using internally as guidelines are the admission guidelines, the 60-40. So we are looking at a 60-40 on a school by school as well as district-wide as a goal or [74] guideline from which to plan and work toward. That is an internal goal for us to meet.

Q. So you are saying then that you realize that this 60-40 ratio is not Court imposed?

A. I realize that.

Q. I'm sorry?

A. Yes, I realize that.

Q. And also , Dr. Marks, you won't consider any aspect of the desegregation plan to be fully implemented until, among other things, the District schools have each reached the 50th percentile in student achievement; isn't that correct?

A. What we are using as a goal internally is that we want every school and we want the District to reach the national norm, the 50th percentile as a goal from which to plan and work toward as we began to set the guidelines and objectives by school and district. Those are internal, totally internal goals and objectives we are trying to meet as we plan for the future.

Q. You also understand then that this 50th percentile goal that you stated is not imposed by the Courts?

A. Yes, I am aware of that.

Q. In fact, Dr. Marks, the District could have chosen any other desegregative goal; couldn't it?

A. Yes, it could have.

Q. It could have chosen say 65-35?

[75]

A. We could have chosen a different number as a goal

Q. It could also have chosen some other level of student achievement; isn't that right, say the 60th percentile instead of 50th?

A. Yes. And there was a lot of discussion on staff about assigning the same achievement ratios as Shawnee Mission has, since we need to be suburban comparable, but we rejected that because we thought that might take us too far in the future, but we could have set it at 92 percentile.

Q. So Dr. Marks, to say that a given component of desegregation program won't be fully implemented until the District's own internal desegregation and student achievement goals are met, aren't you really telling this Court that it's up to the District to decide when a program has been fully implemented?

A. I would never be so presumptuous to tell a judge or a court when that occurs. That's not in my jurisdiction. It is in my jurisdiction to set internal goals and objectives to be achieved. And that's what we have done.

Q. Dr. Marks, in the event that the District enunciated desegregation and student achievement goals aren't met for another 100 years, is it your intention that that Court should continue to order state funding for those KCMSD programs until that time?

A. I personally wouldn't offer an opinion on that. I think **[76]** that's outside of my jurisdiction to decide on. I think that's something that will be argued in this courtroom, and that decision will be made by people other than myself.

Q. So then, are you saying then that there could be a time limit in the event that your particular student achievement and desegregative goals are not reached?

A. There certainly could be. Somebody could determine that.

Q. Dr. Marks, can you tell me of any component of the desegregation plan that has not enhanced the quality of the educational opportunity for the KCMSD students?

A. To my knowledge, the programs and the plans that are currently in place enhance the levels of desegregation and student achievement in this District. I know of none that are in place that I would not recommend at this point to go forward.

* * *

[77]

* * *

Q. Dr. Marks, I am going to hand you now a document that has been labeled for identification purposes as State's Exhibit No. 2. Without saying what it is, Dr. Marks, could you say please, if you recognize that document?

A. I have seen this document, yes.

[78]

Q. Do you recognize it to be any particular document?

A. It's an evaluation document of Effective Schools in the reading and mathematics area.

Q. Is it prepared by the KCMSD?

A. Yes. It was prepared by the evaluation office.

MR. EDELMAN: The state would move at this time, Your Honor, for the introduction of the evaluation of Effective Schools Reading and Mathematics Outcomes for 90-91 document, State's Exhibit 2, to be introduced into evidence.

MS. BRANNAN: No objection.

THE COURT: Exhibit 2 will be admitted.

Q. (By Mr. Edelman) Dr. Marks, if you refer to page VI, there is a table on that page entitled number and percent of KCMSD schools who achieve their ITBS and TAP reading objectives for the 1990-91 school year; isn't that correct?

A. Yes. It's on that page.

Q. Now, at the bottom of that table, Dr. Marks, there is a total showing that 274 school grades were measured for the purposes of this table; isn't that correct?

A. That's correct.

Q. And in fact out of that 274 school grades that were measured, the chart shows that only 46 school grades actually met their objective; isn't that correct, Dr. Marks?

A. That's what the table shows.

Q. And in fact, the table also shows, doesn't it, that that **[79]** 46 out of 274 translates to 17 percent?

A. That's what the chart shows.

Q. Dr. Marks, are you telling this Court that the Effective Schools Reading Program has been successful, when only 17 percent of the school grades measured have met their objectives?

A. I believe this data was collected the year that I came to the School District. If you will look at the date, it's not collected on the current year, and the data shows some degree of success. As to what level of success would be appropriate or acceptable, I am not capable of really doing that. I don't know if that would be significant or nonsignificant, but a researcher would have to respond. But I would certainly think that we could do better than 17 percent.

* * *

APPENDIX S

Exerpts from Testimony of Mr. Arthur Rainwater (May 27, 1992)

* * *

[100]

* * *

Q. (By Mr. Borkowski) Mr. Rainwater, I would like to ask you a few questions first of all about the progress that the District has made in its implementing its desegregation remedy, and I am going to bring an easel over and set it up here. If you could just come down and use it to illustrate your testimony.

I tell you what, let me ask you, first of all, what this first chart here represents, Mr. Rainwater?

A. The first chart is a comparison of the percent of district elementary schools that we have and their relative number or percentage of minority students. It's a comparison between 1984-85 and 1991-92.

Q. Okay. What does the dark section at the top of each circle represent?

[101]

A. The dark section represents the percentage of — the dark section on each chart represents the percentage of the schools that have 90 percent or more minority students.

Q. What does the comparison of the two circles show about that percent?

A. The number of schools, the percentage of schools is decreased. In 1984-95 [sic] from 38 percent of the School District schools with 90 percent minority to its current 19 percent, with 19 percent minority.

Q. What grade level does this chart refer to?

A. This chart, I believe refers to the District as a whole — I am sorry, elementary schools.

Q. Okay. Could you turn to the next chart please.

What is represented on this chart, Mr. Rainwater?

A. This is the same comparison for our middle schools. Again, showing 33 percent of our schools in 1984-95 [sic] that were 90 percent or more minority, and 18 percent in the '90 — the 91-92 school year that are 90 percent minority.

Q. Can you flip to the next chart.

A. The next chart, the same comparison for our high schools with a change in 84-85 from 33 percent of our schools being 90 percent minority to 20 percent during this school year.

Q. Okay. What do the other pieces of pie, so to speak show?

A. The other pieces of the pie basically show the gradations **[102]** moving down: the green being 80 to 90 percent minority; the blue being 70 to 80 percent; the orange or brown being less than 60 percent minority.

Q. Mr. Rainwater, let me hand you a series of documents which have been marked as KCMSD Exhibit 15-A, B, C.

Can you identify those documents?

A. Yes. These documents are identical to the three charts that we have just looked at.

Q. Okay. And have you verified that these charts accurately reflect the District's enrollment data for these years?

A. Yes, they do.

MR. BORKOWSKI: Your Honor, KCMSD would move the admission of Exhibits 15-A, B and C.

MR. MATANIC: Your Honor, I have no objection to the admission of the exhibits; it doesn't vouch for their accuracy.

THE COURT: Exhibits 15-A, B and C will be admitted.

Q. (By Mr. Borkowski) What generally, if you could summarize, do these three charts indicate about the status of the District in terms of desegregation in your view?

A. In my view it shows very clearly that the District has successfully began to implement a process that has reduced racial isolation in the District, and it shows that at each of our organizational levels.

Q. Does, in looking at the 1991-92 charts, does a **[103]** significant degree of racial isolation remain?

A. Yes. It does. At the high school level that's still 20 percent of our schools have kids that re in virtually isolated situations.

* * *

[107]

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Q. What subject area does this chart address?

A. The chart we have here addresses reading.

Q. And what does the top pie indicate?

A. The red indicates those schools that are at or above national norms in reading, and the gray represents those schools that are below national norms in reading. And that's for 1985.

Q. What about the bottom chart?

A. The bottom chart would be exactly the same representation in terms of the red representing those schools and subtests at grade levels that are above national norms, and the gray representing those that are below national norms.

[108]

Q. What does the comparison between 1985 and 1991 show, Mr. Rainwater?

A. The comparison very clearly shows that we now have more grade levels and more schools above national norms than we did in 1984-85. The actual comparison is about 16 percent at or above national norms in '85, and 28 percent now above national norms.

Q. Mr. Rainwater, what does the large gray area in the 1991 pie represent?

A. This represents our schools that are still below national norms on various grade levels.

Q. What does that say to you about the progress the District needs to make in terms of improving student achievement in this area?

A. I think it clearly indicates that while we have made positive progress things that are changing, that we still have a long way to go in terms of achieving for our students the level of achievement that they should have.

Q. Would you turn to the next page on the easel please, Mr. Rainwater.

Would you describe for us this chart?

A. That is the same representation as applied to the mathematics subtests. The color coding is exactly the same. Twenty-eight percent of our schools in 1985 were at or above national norms. Now we have 45 percent at or above national [109] norms in 1991.

Q. So is it fair to say that the District has made greater progress in mathematics than in reading?

A. Yes. This chart would indicate that.

Q. And what about the bottom chart, that the comparison, how would you compare the pink and the gray sections?

A. Well, we are now at about 50-50. It appears that with our schools failing on either side of the line, we still have a long way to go. We will not have achieved what we would like to achieve until this chart is basically all red.

Q. Mr. Rainwater, I am handing you a copy of what has been marked as KCMSD Exhibit 18; it's a two-page exhibit. Can you identify that please?

A. Yes. This is a smaller representation of the graphs that we have just been through.

MR. BORKOWSKI: Your Honor, KCMSD moves the admission of Exhibit 18.

MR. MATANIC: You Honor, again, objection is to relevance.

THE COURT: It will be admitted for whatever value it may have.

Q. (By Mr. Borkowski) Mr. Rainwater, would you turn to the final page on your easel.

What is on this chart?

A. This is basically the same representation except applied [110] to language arts and written expression. It shows, again the same trend, 33 percent of our schools at or above national norms in 1985. We are now at 47 percent at or above national norms today in this area. Again, indicating that we have made substantial progress here; but in fact still have work to do for many of our children.

Q. Okay. Let me hand you KCMSD Exhibit 19.

Let me ask you if you can identify that document?

A. Yes. This is a smaller representation of the same charts.

MR. BORKOWSKI: KCMSD moves the admission of Exhibit 19.

MR. MATANIC: Again, Your Honor, State objects to the relevance of the exhibit.

THE COURT: Well, it will be admitted.

* * *

[111]

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Q. (By Mr. Borkowski) Mr. Rainwater, before I ask you some questions about another area, can you summarize for me what the things we have just been talking about, about the charts of students in 90 percent minority schools, this achievement data, what conclusion it has led you to reach, as Associate Superintendent for Instruction, about the District's progress?

A. My conclusion is that what we are doing is working, that it is going to take time to accomplish its goal, that we have made a successful start. And that we need to continue along the same road that we are going, and that we'll continue to see the same kind of progress.

* * *

[162]

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Q. Mr. Rainwater what are the vestiges of desegregation in the District?

A. I think we saw that very clearly illustrated on the chart. We still have a substantial number of 90 percent or more minority schools. We still have, again, a substantial number of 80 to 90

percent minority schools. I think we saw that our achievement levels are much lower than they should be.

I believe all of those things in terms of our students still being in racially isolated schools and having **[163]** low achievement levels, I think all of those things point to the vestiges of segregation.

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[184]

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Q. Let me just ask you a question, Mr. Rainwater, that I think will try to summarize, I will try to summarize your testimony here on cross-examination.

Is it the case that the District, in your view, has done its upmost to comply with the Court's order with respect to the 14 continuing programs that are proposed for next year?

A. Yes, we certainly have.

Q. And I take it, Mr. Rainwater, that it's fair to say that your testimony earlier indicated that in some respects you don't believe that the District has yet achieved the goals of **[185]** those programs?

A. That's correct. I do not believe we have.

Q. You testified earlier that you thought these programs were part of an integrated whole, and you had some cross-examination questions about that?

A. Yes.

Q. Can you explain more fully what you mean by these programs are part of an integrated whole?

A. Certainly. I think that all of the programs ordered by the court, including every part, it's tied together to try to desegregate

the School District and to raise student achievement. All of those are necessary to depend upon each other. What I do not know at this time is what that specific relationship is to each and every single part, in terms of if you withdraw this part, how does that affect and roll out into every single other piece. So as anything would relate to the capital improvement program, for example, without some really indepth analysis to say okay, what happens when you do this, I don't know, but I believe that all of the orders of the Court are totally integrated.

Q. Let me ask you just a question. For example, if the District did not have the Reduced Class Size component of the Year VIII program, would that affect other components of the Year VIII proposals?

A. Certainly.

[186]

Q. Why is that, how would that affect them?

A. Well, the Reduced Class Size component, first of all, limits the number of kids that you have in the classroom. It would have an impact on the kind of support services that we provided under AAA. For example, it would change that number of teams. The more kids that you put into a classroom, the more problems you have academically and everything else, so you have now changed the role of the counselors that are funded under AAA, I mean you could go on and on, on and on. Each piece reacts to the other.

Q. Would it affect the District's ability to effectively implement the long range management?

A. No question. If you increase class sizes to, but I haven't done all of the numbers of this, but without reduced class sizes, you are looking at classes probably somewhere between 30 and 40 kids and that would significantly impact our ability to attract people to come in from outside the District and to stay into the

District. They are not going to leave schools where they have smaller class sizes to come into crowded classes that they know are not going to be effective concerning achievement.

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[187]

* * *

Q. Has the District made the progress to the extent practical in achieving desegregation and improving achievement?

MR. MATANIC: I object to the question. The witness has just testified that the KCMSD has done its upmost to comply with the Court orders.

MR. BENSON: I am not asking about complying with the Court's orders.

THE COURT: That wasn't the question.

A. I believe that we have made the kind of progress that **[188]** should be expected at this stage of this complex kind of remedy.

THE COURT: I think the question that you have reached.

Q. (By Mr. Benson) Have we gotten as far as we can practically expect to go?

A. No, I am sorry. I didn't understand the question. No, no.

Q. Now with respect to each of these components that Mr. Matanic just asked you about, if given more time and continued compliance with the Court's order, it is practical to expect us to continue to make progress?

A. Yes.

* * *

Q. Would some of the desegregation programs not have that [189] effect, have no effect on the LRMP, I can give you a list if that would help you.

A. I can try to answer the question generally if that's acceptable, and you can, if you want to, go down the list. That will be fine.

Q. All right.

A. Generally speaking, my understanding of the way that the Court orders work, from my standpoint as an implementor, the primary means of desegregation, in terms of attracting and changing the demographics of the District, the primary means of doing that is the Long Range Magnet Plan.

The other programs, in my view, as an implementor, the other programs work to make that happen. Regardless of how attractive a Magnet Program is, for example, if parents do not feel safe in that school, they are not going to choose to send their precious children to that school.

So the security proposal impacts whether they do that or not. If class sizes are not small and contribute to a strong student achievement base, then parents are not going to choose to send their kids to a place where they know that are going to get an education — to a place where they can very easily see that they are not.

You can go on down the line with every single one of them. I believe every single one of those components contributes to allow the Long Range Magnet Plan to, in turn, [190] attract people to come into the District and to hold the people that we currently have, which I think is an important aspect.

You have got to remember, that one of the most important things that we have done is that we have stopped, we have stopped segregation, and we have begun to turn that back. Every

one of those components is critical to allow the Long Range Magnet Plan to do that.

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[158]

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Q. And has the attainment of AAA enhanced the qualities of the educational opportunity available in the District?

A. Yes.

Q. And is the AAA component fully implemented?

A. No.

Q. Are any of the components fully implemented?

[159]

A. No, they are not.

Q. Why are none of the components fully implemented?

A. They have not accomplished the purpose for which they were ordered.

Q. What was that purpose?

A. The purpose was to achieve desegregation and to change the levels of achievement in this District to eliminate the vestiges of segregation.

Q. What are the desegregation and achievement levels which the District is striving to meet?

A. I am not aware that the Court has set those.

Q. Are you aware of any Court order that requires a particular goal for either numerical desegregation or student achievement?

A. I am not aware of such a Court order.

Q. Is it your contention that until those desegregation and achievement levels are met that the remedial plan must continue?

A. Yes. That would be my understanding.

Q. Regardless of how many years it would take?

A. Regardless of how many years it would take.

Q. Even 100 years?

A. Regardless of how many years.

* * *

[164]

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Q. Has attainment of Reduced Class Size enhanced the quality of educational opportunity available in the District?

A. Yes.

Q. Has it increased individual attention and instruction?

A. Yes.

Q. Has it increased the potential for desegregative educational experiences for KCMSD students by maintaining and attracting nonminority enrollment?

A. Yes.

* * *

[166]

* * *

Q. Lets talk about Full-Day Kindergarten. Has the District complied with the Court's order as to provisions of the Full-Day Kindergarten Program?

A. Yes, it has.

Q. Has the provision of a Full-Day Kindergarten enhanced the quality of education available in the District?

A. Yes, it has.

[168]

* * *

Has the District complied with the Court orders to provide Early Childhood?

A. Yes, we have.

Q. Has that program enhanced the quality of educational opportunity available in the District?

[169]

A. Yes, it has.

* * *

[171]

* * *

Q. Let's talk about Effective Schools, Mr. Rainwater.

Has the District complied with the Court's order to provide the Effective Schools Program?

A. Yes, we have.

Q. Did it enhance the quality of educational opportunity available in the District?

A. I believe it did, yes.

Q. Did the Extended Day?

A. Yes.

* * *

[179]

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Q. Has provision of the Base Budgets Program and the District Communications Program enhanced the quality of educational opportunity available in the District?

A. Yes.

Q. Have those two programs been effective programs?

A. Yes, I believe they have.

* * *

[165]

* * *

Q. Let's talk about Summer School.

Is the District in compliance with the Court's orders as to Summer School?

A. Yes, as far as I know.

Q. Has the provision of the Summer School Program enhanced the quality of educational opportunity available in the District?

A. Yes, I believe that it has.

Q. Has it been effective in desegregating the District?

A. I am not sure of its effect. I believe it has.

Q. Has it provided remedial and developmental learning experiences for elementary and secondary education level students?

A. Yes.

Q. Has it provided reinforcement and enrichment for secondary education students?

A. Yes.

Q. Has it provided a desegregative learning experience at **[166]** both elementary and secondary level?

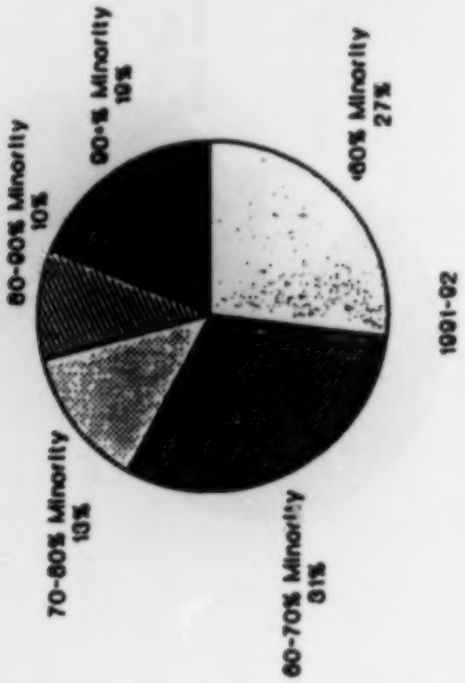
A. Yes, it has.

* * *

APPENDIX T — KCMSD Exhibits 15a-c

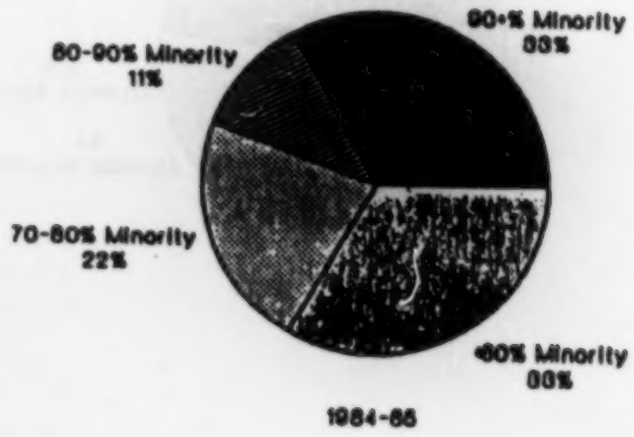
KCMSD Exhibit 15a

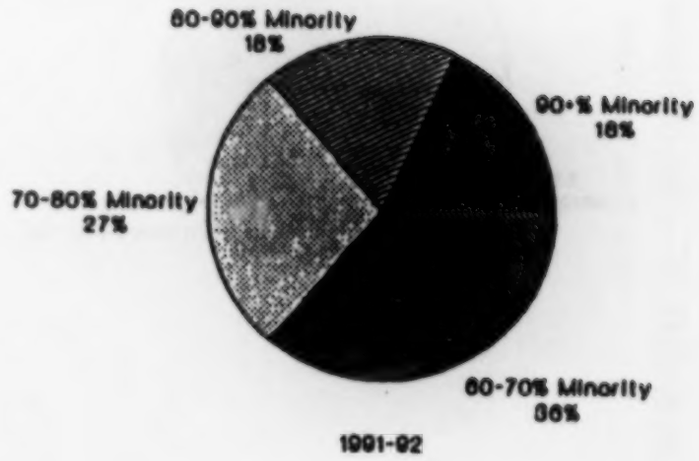
Percent of District Elementary Schools with Minority Enrollments of 90+%, 80-90%, 70-80%, 60-70%, or <60% in 1984-85 and 1991-92



KCMSD Exhibit 15b

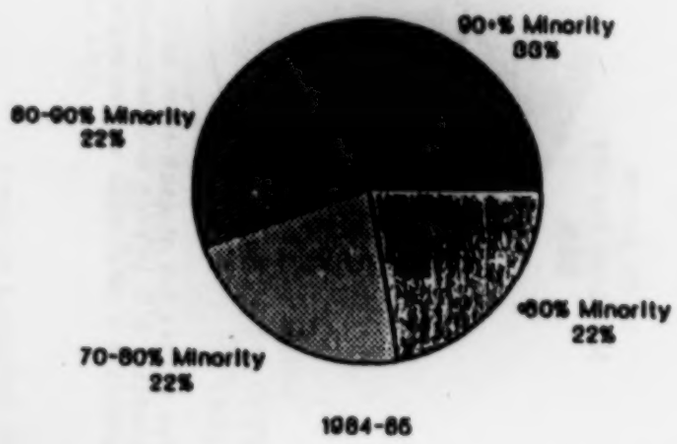
Percent of District Middle Schools with Minority Enrollments
of 90+%, 80-90%, 70-80%, 60-70%, or <60% in 1984-85 and 1991-92

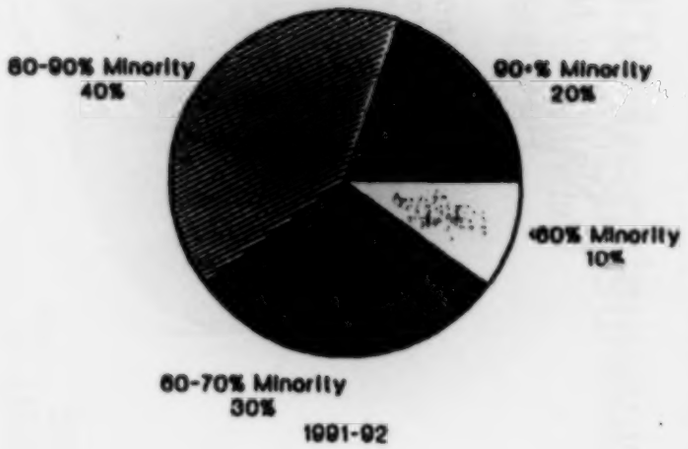




KCMSD Exhibit 15c

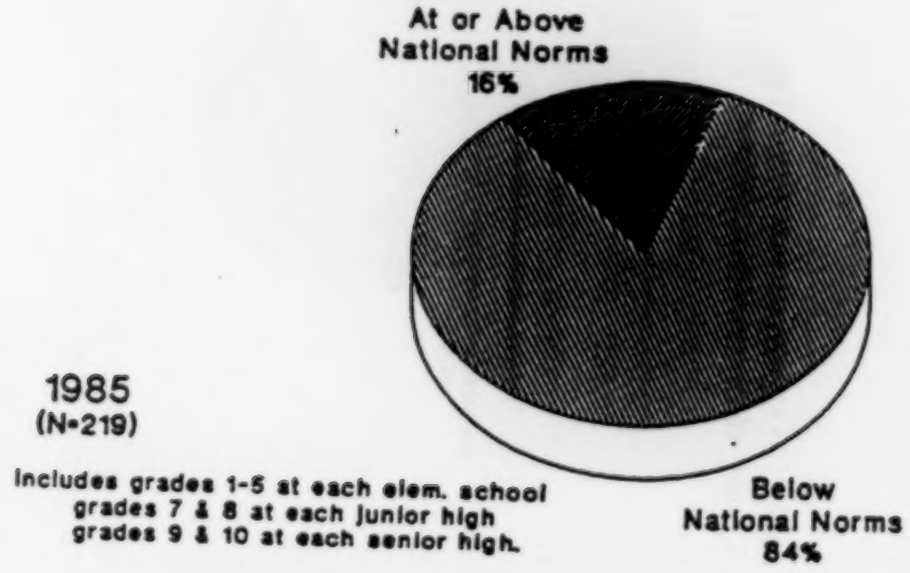
Percent of District High Schools with Minority Enrollments
of 90+%, 80-90%, 70-80%, 60-70%, or <60% in 1984-85 and 1991-92





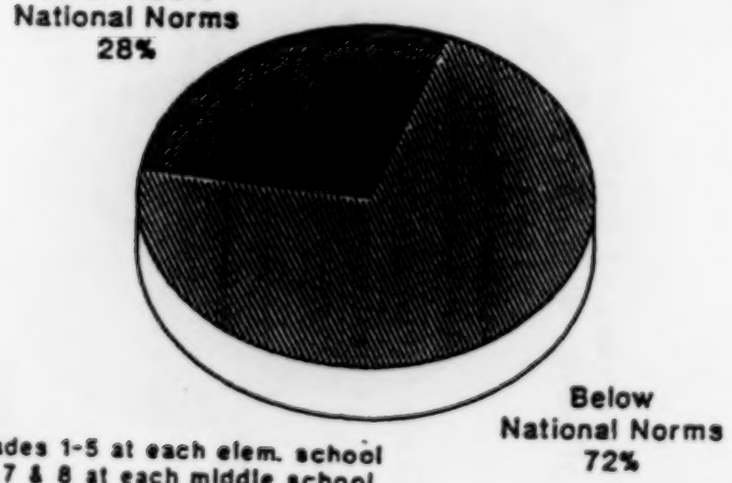
APPENDIX U — KCMSD Exhibit 18 (May 27, 1992)

Relationship of KCMSD Schools
to National Norms
Reading



1985
(N=219)

Includes grades 1-5 at each elem. school
grades 7 & 8 at each junior high
grades 9 & 10 at each senior high.

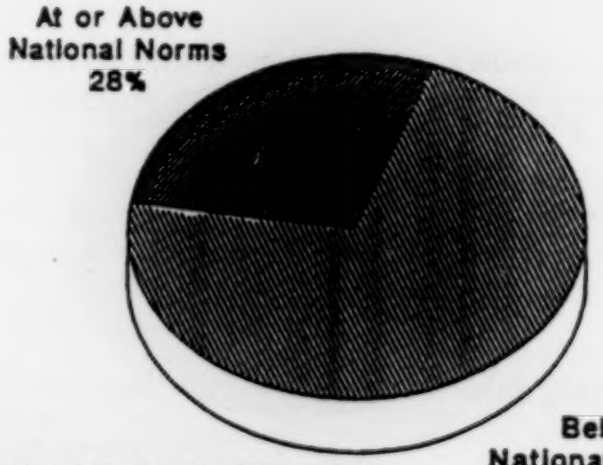


1991
(N=265)

Includes grades 1-5 at each elem. school
grades 7 & 8 at each middle school
grades 9 & 10 at each senior high.

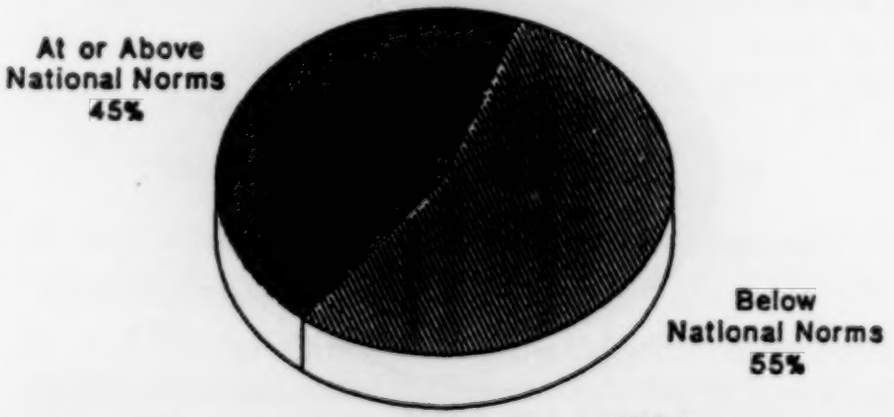
Exhibit 18 continued

Relationship of KCMSD Schools
to National Norms
Math



Includes grades 1-5 at each elem. school
grades 7 & 8 at each junior high
grades 9 & 10 at each senior high.

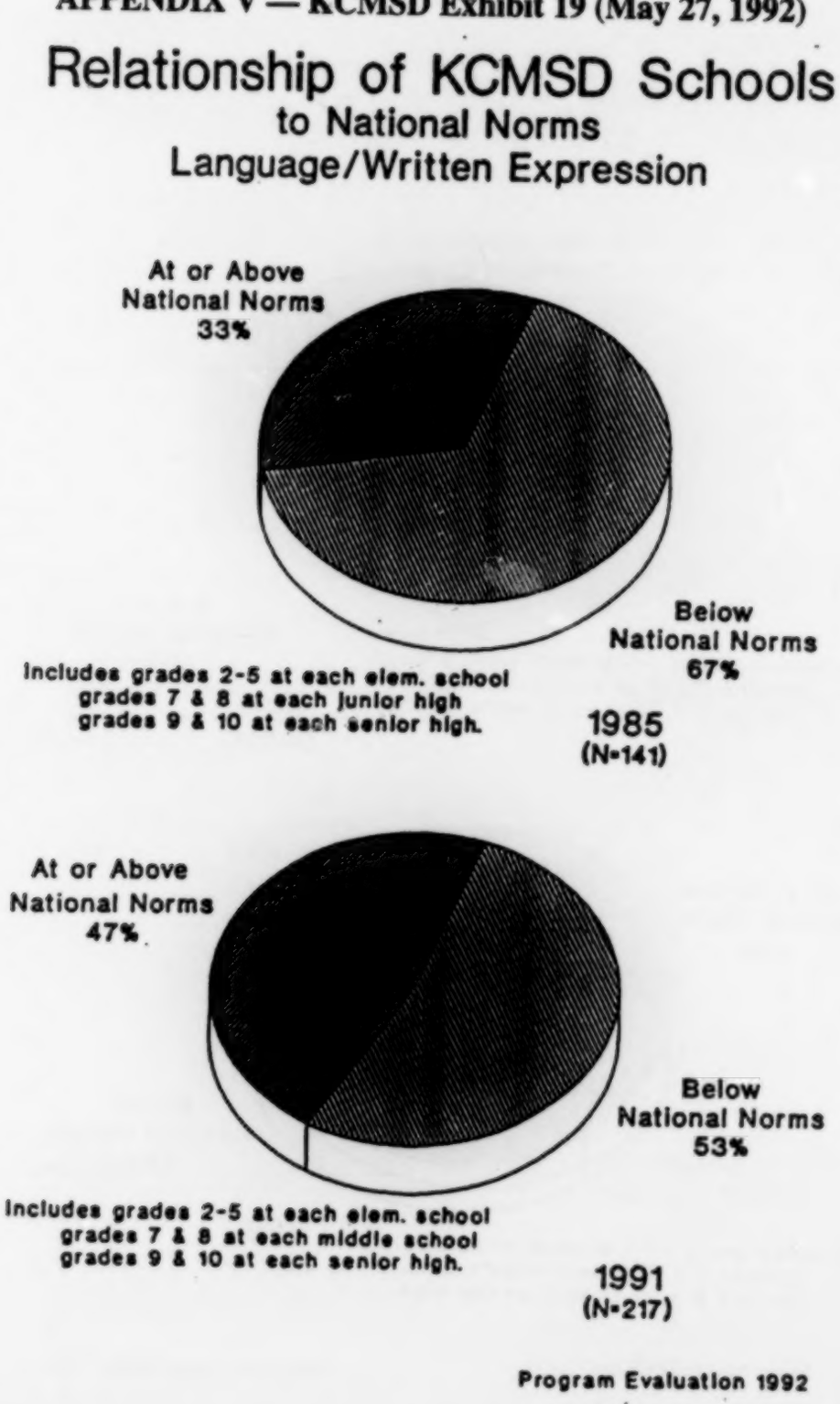
1985
(N=219)



Includes grades 1-5 at each elem. school
grades 7 & 8 at each middle school
grades 9 & 10 at each senior high.

1991
(N=265)

APPENDIX V — KCMSD Exhibit 19 (May 27, 1992)



APPENDIX W

Transcript of Direct Examination of

Dr. Terrance Stewart (May 28, 1992)

* * *

[447]

MR. FIELDS: Good afternoon, Your Honor. We have decided to switch the order of the witnesses in hopes that maybe we can get done this afternoon.

TERRANCE STEWART, called as a witness on behalf of the State, being first duly sworn, testified:

DIRECT EXAMINATION BY MR. FIELDS:

Q Would you state your name for the record, please.

A. Terrance Stewart.

Q Welcome back to the case, Dr. Stewart. We haven't seen you in a couple of years, at least in testimony. What's your current employment, Dr. Stewart?

A The Missouri Department of Elementary and Secondary Education.

Q Would you summarize your -

THE COURT: Would you put this mike on -

Q Would you summarize your educational background for the Court, please.

A Yes. Bachelor's degree from the University of Missouri in general education, social studies; master's degree from Central Missouri State University in general - or secondary school administration; a specialist degree from the University of Missouri. A specialist degree is the degree that's required to become

superintendent in Missouri. And then a doctorate degree from the University of Missouri in education with major area in general administration and a **[448]** secondary area in curriculum and instruction.

Q Okay. Dr. Stewart, I believe you have a copy of your resume.

A Yes.

Q I'll show you what has been marked as State's Exhibit 10 and ask if you can identify that.

A Yes, that's my resume.

Q Before we get to that, could you also summarize your professional background for the Court.

A I was a teacher in the Park Hill School District for two years, social studies teacher; principal for four years; a superintendent of schools for eight years, and I am now just completing my 8th year as an employee of the Department of Elementary and Secondary Education.

Q And does State's Exhibit 10 fairly and accurately summarize your professional and educational background, Dr. Stewart?

A Yes, it does.

MR. FIELDS: I move the admission of State's 10.

THE COURT: State's 10 will be received.

Q (By Mr. Fields) How long have you been involved, either directly or in a supervisory capacity, in the Kansas City desegregation case?

A Since June - no, September of 1984.

Q. Would you describe for the Court your direct **[449]** participation in the case.

A In 1984 the Court's liability order was handed down and then it became the duty of the parties to fashion a remedy for the Court. My involvement began at that stage in the development of the remedy on behalf of the State. I worked with the State officials to develop the remedy.

I also during that time in that capacity reviewed all the remedies and the plans submitted by the other parties, listened - sat out here in the courtroom and listened to the experts and the testimony that was given through the various hearings, read all the Court's orders that came from those hearings.

After the orders were - came down and we were in the implementation phase of the various orders, I attended all the MC meetings, the monitor committee meetings, and continued to read the various motions and the filings and briefs that came back and forth, continued to read all the documents from our department that came to the District, and continued to work with the District on the implementation.

Q And in the course of that, both the development of the remedy and monitoring the implementation of the remedy as it proceeded on, did you get involved in negotiations with the School District officials?

A There were several items in the early years where we worked together to try to fashion or to try to work out some **[450]** of the differences. Particularly I think what comes to mind is the Early Childhood Program, but there were other issues also, so I worked with several of the District officials during those days.

Q Many of those officials that you worked with still around?

A No, they're not.

Q Have you also been involved in the St. Louis litigation?

A Yes, to a lesser extent and a few less years, but, yes, probably for about five years. The same kind of supervisory management kind of responsibility.

Q What was your title at the Department of Elementary and Secondary Education when you were involved in direct activity relating to the Kansas City case?

A It was the coordinator of administrative services.

Q And in that capacity, did you also have duties relating to the provision of educational services in areas of the state other than Kansas City?

A Yes. The coordinator of administrative services position was a newly created position. The department wanted to enhance its ability within the Division of Administration to cut across all division lines and work with all the various divisions in our department. My duties - I think the reason that I was employed there is because of the background I had in school administration. They wanted **[451]** somebody there who was familiar with a wide array of educational programs, and my duties there, my responsibilities and supervisory responsibilities included working with things within the Division of Administration, the school finance section as it pertains to the distribution of monies, the transportation section as it pertains to the distribution of the transportation monies, and the rules and regulations there, and the other sections within the Division of Administration, the school data section as it gathered data, but the main responsibility really for that position was to coordinate all of the activities within our department as they affect and pertain to school districts, and that's where the responsibility to cut across division lines came into play. My job was to work with the Division of Instruction as it worked with school districts on the classification program. Not so much to do the classification but make sure that it was a coordinated effort with the other divisions within our department, and the same is true for the Division of

Vocational and Adult Education and Urban Education and the others.

Q How about the Division of Curriculum Instruction?

A Well, that's where the classification section is, is in the Division of Instruction.

Q And in the course of your duties as coordinator, did you became familiar with the various educational offerings that **[452]** are provided by school districts throughout the state?

A Well, in the course of that responsibility and the one that I have now, part of the responsibility - maybe I could just do that, just jump to that. Currently my job is assistant commissioner for the Division of Administration.

Q When did you get appointed to that position?

A That was in June of '89.

Q All right. You were going to expound on your duties.

A The Department of Elementary and Secondary Education has six divisions, and the divisions, for the most part, are kind of discrete bodies. For example, the Division of Special Education handles special education kinds of issues, and they don't really cross lines into another part of the department. The Division of Vocational and Adult Education does the same kind of things they are all discrete within themselves. The Division of Administration is the one division that has the responsibility to cross all these division lines and coordinate the administration of the services to the 540 school districts. It's a rather involved process.

There are thirteen directors in the Division of Administration who report directly to me and many of them have that same responsibility. Now, what I mean by that, if you were to look on the resume, the school finance section as an example, they are responsible to distribute most of the monies that goes to

school. That's even monies that are [453] calculated and worked in the Division of Special Education or in the Vocational Education Division. So the staff that I am responsible for have responsibilities that are department-wide.

The same would be true for the school data section. Those people are responsible for gathering a great deal of data all across the department, all across all division lines, data that has to do with class sizes, enrollments, anything pertaining to teachers, anything pertaining to tax rates and revenue and assessed valuations for school districts, a whole wide array of data that pertains to the curriculum of school districts and the instruction, the classification of the school districts, whether it's AA or AAA.

Q And this data is data that is collected by the Department of Elementary and Secondary Education from the school districts?

A It's collected from the school districts. It's collected and assimilated in the Division of Administration, one of the sections over which I have responsibility. So all this is kind of a long answer to come back to you to say that because of those responsibilities and because of the people that I supervise and because of the documents that we have to work with, I have worked with virtually everybody within our department and every division, all the directors and become [454] knowledgeable of how the various programs work in the department and throughout Missouri.

Q Do you also have legislative duties that involve the use of this data that's collected from the school districts?

A One of the items on the resume has to do with the budget. Well, the answer is yes. It has to do with the budget. It's my responsibility to represent the Department of Elementary and Secondary Education in all the budget hearings in front of the General Assembly, whether it's in the House Appropriations

Committee or the Senate Appropriations Committee, and in order to do that and to do that effectively, and hopefully, I have been effective at that, is that I have to have the kinds of information and knowledge that pertain to absolutely every program that's in the public schools in Missouri, because when we make a budget request, the budget request is $1.2 billion and then a little extra for some other things, the members of the General Assembly will ask whatever question they wish on whichever program they wish, and so I have to have the kinds of information and knowledge that's necessary to be able to respond to those kinds of inquiries.

Q As an aside, I understand the legislature has made a little addition to the Department of Elementary and Secondary Education budget that has some relevance to this case.

A Yes, they appropriated 297.3 million for desegregation. [455] It's reflected what is estimated to be the State's share for both Kansas City and St. Louis.

Q So in the course of your duties, then, both in administering the educational programs throughout the State and in your legislative duties, you are very frequently involved in requesting data from the various sections of the Department of Elementary and Secondary Education?

A Yes. I receive - I request and receive a great deal of information on almost all the programs, and it has to be that way. It's kind of hard to believe, but our budget document is truly five or six inches thick, just full of data that explains the various programs.

Q When you are speaking of various programs, you're not talking about programs internal to DESE.

A No. I'm talking about all services that go to the public schools, to all 540 public schools.

Q In the course of your preparation for testimony here, have you also had occasion to ask the various sections of the department to provide you with data?

A Yes, I have.

Q Okay. Have you also continued to be, in your role as assistant commissioner, have you also continued to be involved in the monitoring and implementation of the Kansas City remedial components?

A Yes, I have. In the early days, we did not have a **[456]** section of desegregation services. I think probably I was that section. But here within the last couple of years we have been able to create a section of desegregation services. We have a director there and staff there, and that section and staff keeps me informed about the Kansas City desegregation program, as do all the other sections keep me informed, so I receive daily reports from the director. I am carboned on every letter that comes out of our department to the Kansas City School District so I have read every letter for the last several years that's gone. I don't read as many of the court orders as I once did, or of the filings as I once did, or of the DMC minutes as I once did, but I still read those and read parts of those, those that are brought to my attention by the staff.

Q Have you also maintained your familiarity with the court's orders in your position as assistant commissioner?

A Yes.

Q In your position as both coordinator and assistant commissioner, have you continuously monitored the status of the programs which is characterized as the Year VIII Intra-District budget programs insofar as the establishment of those programs and the continuous operation of those programs since the 1985-86 school year?

A Yes.

Q And what does your review of those programs consist of?

[457]

A I think it's the same as I just mentioned. I review every letter that's sent to the District. I review the filings and the motions and the briefs that are provided by my staff. I receive updates and reports just daily from the director of the desegregation services section. I attended another monitoring committee meeting here just a couple months ago, just for old time's sake, just to keep myself informed of what's going on in the monitoring committee meetings. It's mostly just review of the materials and the updates from the staff.

Q Dr. Stewart, do you believe that your experience and your background and your current duties as they relate to the desegregation program in the Kansas City case would be helpful - would enable you to offer information that would be helpful to the Court in terms of understanding the implementation status of the various programs and comparing the implementation status of the various programs in Kansas City with school districts in the surrounding suburban area, as well as throughout the rest of the state?

A Yes, I do. When I look around the courtroom here, I have been involved in this program now for eight years, almost eight years, and I can see Arthur Benson and Dr. Eubanks and Shirley Keeler and the Court have been involved as long or longer than I have, but I don't believe there's anyone else here that has been involved in this program for **[458]** that amount of time. I have also been involved in the St. Louis side, and I failed to really mention my involvement with schools, not only do I gather data for schools but I have a primary responsibility to be out into the schools. I have been in virtually every school district in Missouri, not every one but almost every one. I certainly have been in every school district in the suburban area here in Kansas City

and in many of their buildings and in several of the buildings here in the Kansas City School District, so I think that eight-year familiarity with the program and the familiarity with all the school districts in Missouri and the data from all that allows me to make some sort of a judgment on these things.

Q All right. Let's take a look at some of the individual programs, then, that make up the VIII year budget. Have you reviewed the District's pleading requesting - and plaintiff's pleading, requesting various VIII year budgets?

A Yes.

Q What is your understanding - let's talk about AAA first. What is your understanding of the requirement of the Court with respect to AAA in the Kansas City, Missouri, School District?

A Well, there were several requirements for that component of the plan. One of the requirements was to improve the library resources, and by resources in that sense, I really **[459]** just mean those items that are in the library that students may use, the books, the periodicals, the film strips. The things that are on the shelf. The Court asked or directed that the resources be brought up to meet and to barely exceed AAA standards for resources in the library, so that was one of the components.

Along with that, the Court asked or directed that the number of librarians be increased, again to meet and barely exceed the AAA standards so that the ratio of librarians to pupils would be reduced from what it was prior to the Court order and be enhanced. The same would be true for counselors or the additional number of counselors were ordered to reduce that ratio and enhance the services that were provided by counselors. And then the same is true for art, music, and PE teachers, and then some additional teachers and teacher aides.

Q All right. Dr. Stewart, do you know whether the KCMSD has now attained AAA status?

A Yes, they have.

Q And do you know how that occurred?

A They attained AAA status in all the areas in '85-86 except for the libraries and the libraries took just a little bit longer. They attained AAA status in their libraries in the '87-88 school year and the Court recognized both those achievements in its June '86 order and then in its July 5, **[460]** 1989 order.

Q What does full AAA status mean?

A Well, AAA, full AAA status is reflective of the educational opportunities that are available in the district. It's reflective of a higher opportunity in terms of number of resources that are available to the students, in terms of the class sizes, the pupil-teacher ratios, in terms of the number of counselors and librarians that can provide services to the students, and it's reflective of a higher educational opportunity as compared to the lower standard of AA.

Q All right. Was the Kansas City, Missouri, School District rated AAA prior to the 1985-86 school year?

A Not for some years. I think they were rated AA from 1977 to the time of the Court's order.

Q What does AA mean?

A It's reflective of the lower standards. In other words, it means there's fewer books in the library. The pupil-teacher ratios are not quite as conducive to learning. They are higher. There may not be as many counselors available for the district.

Q To your knowledge, has the KCMSD maintained AAA status continuously to the present time since it was first awarded in 1987-88?

A Well, yes, it's maintained and greatly exceeded the AAA requirements.

[461]

Q Do you have any information on how the District has exceeded AAA requirements?

A Yes, I do. I asked our staff to prepare some information, to gather the data, and really in AAA, it's just gathering numbers, quite frankly, so we gathered some information that speak to each of the requirements in the order, the resources and the various personnel standards that the Court set forth.

Q All right. Can you describe some of the ways in which the Kansas City, Missouri, School District has exceeded AAA standards for the various resources?

A Yes. Let me start with the resources in the libraries, and by the resources, again I have a copy here. I just want to read what I am referring to and then I'll only do that once. Resources that are there in the library that are on the shelf the kids can use are comprised of books, periodicals, newspapers, audio-visual equipment of all kinds, and slides, prints and charts, maps, globes, various kinds of record players and listening devices, and certainly professional material. So those are the kinds of resources that are a part of the AAA requirements.

The Kansas City School District is in a fortunate position because all of their libraries meet or exceed AAA standards for resources, and some of the libraries exceed by a great deal. For example, the Knotts Environmental Science **[462]** exceeds the numbers of these things that are required - by numbers I mean there's a number of books that are required. They exceed the numbers by 2,874, most of which are books. They have 2400 more books. The Southeast Senior High exceeds the numbers of resources by 10,213. Troost Academy exceeds the number of resources for AAA by over 3300.

Q Now, when you talk about number of resources, are you again talking about the books and the things that go on the shelves?

A Number of things that are on the shelf for the students to use, and I'm talking about numbers that exceed what is required even by AAA standards.

Q Now, Dr. Stewart, is every library in the Kansas City, Missouri, School District at a level of meeting or exceeding the AAA standards?

A Yes, every library.

Q All right. Dr. Stewart, do you have an opinion whether the attainment and maintenance of AAA status since the 1987-88 school year has enhanced the level of quality of the educational opportunities available to all students in the KCMSD?

A Yes.

Q What's that opinion?

A Well, by making these kinds of things available - that's the purpose of AAA, to enhance the opportunity for **[463]** students to have enriched resources in the library, to have reduced pupil-teacher ratios as far as counselors and librarians are concerned. By making these things available, the standard of opportunity is much higher after these programs were implemented than before.

Q And on what do you base your view, then, that the educational opportunity in the Kansas City, Missouri, School District has been enhanced by the attainment of AAA status? In other words - well, let me ask it this way. Were these resources, then, not available prior to the 1985-86 period of time?

A These resources were not available to this degree. The District was AA on these standards prior to the Court's order, and

now it certainly has met the AAA standard and far exceeds it. It has greatly enhanced resources.

Q Does your knowledge of the provision of educational services throughout the State of Missouri enable you to compare AAA resources among KCMSD and the suburban school districts surrounding the KCMSD?

A Yes. It's just a matter of gathering data.

Q With respect to AAA resources, how does KCMSD compare with the suburban districts surrounding it?

A I'll make a general statement on that and then I would like to get into some of the specifics.

Q All right.

[464]

A Kansas City School District exceeds what's available in all the suburban school districts in almost every area of classification that we looked at.

Q Is that because of the larger number of students in the KCMSD, or is that something different?

A No, it's meeting standards.

MS. BRANNAN: We would object at this time to this line. We had inquired of the State the areas in which their witnesses would testify. We were told that Dr. Stewart was expected to testify that the District's Year VIII programs have been fully implemented, there has been equal educational opportunity enhancement of educational opportunities available in the KCMSD. There was nothing represented to us about comparative analysis with the suburban districts. The facts that the State gave us as a basis for Dr. Stewart's testimony were scant or practically absent from that representation. We think he should be limited to talking about the KCMSD.

THE COURT: Well, part of the remedial plan was to make educational opportunities in the Kansas City School District equal to or in excess of the suburban districts. I think his testimony is probative.

Q (By Mr. Fields) The question was with respect to AAA resources, how does KCMSD compare with the suburban districts surrounding the KCMSD?

[465]

A Okay, and I think I gave a general statement about they certainly meet and exceed what is available in the suburban school districts in almost every level, and then I would like to go into some specifics on that to substantiate that statement.

Q All right.

A And the first specific I would use would be in the area of resources themselves, those things that are in the library on the shelf available for the children to use, and you asked this question earlier, and I'll reiterate that. Kansas City School District, every library meets or exceeds the AAA standards in terms of resources. In other words, they don't need any other items in their libraries.

Now, we looked at the libraries at the elementary and middle and senior high level so we can go on to say that they don't need any other materials or resources in any library at any level. None of the suburban school districts are in that position. None of the suburban school districts are such that they do not need additional resources at one or several of the levels.

For example, the Blue Springs School District needs $89,000, more than $89,000 worth of resources at the elementary level, $27,000 at the junior high level, and $20,000 at the high school level. The Independence School District needs more than $47,000 worth of resources at the **[466]** elementary level, a little

over $2,000 at the junior high, and over $29,000 at the senior high level. And the same could be said for North Kansas City, they need over $90,000 if you combine their levels. The same can be said for Liberty, they need over $50,000 and the same can be said for virtually every one of the suburban school districts. The only thing that's different is the amount of money. All the suburbans need additional resources in their libraries.

Q In some categories, are there suburban districts which are in a position where they don't need additional resources for discrete categories of the resource needs?

A Yes. It may be - well, for example, Lee's Summit does not need any additional resources in their elementary libraries, so that's taken care of, but they do need additional resources in their junior high libraries.

Q Okay. Now, you have dealt with library services. What about counseling, counselor services?

A Actually, I have just dealt with the resources. I would like to deal with the librarians because I think that's important also.

Q Okay.

A The Court also directed that the number of librarians be increased to meet or exceed the AAA standards. The AAA standards for librarians is a ratio, really. It's one librarian to a certain number of students, and it varies **[467]** depending upon the level. So it's one librarian to 1500 students at the elementary level and then 1,000 at the secondary, the junion [sic] high and the secondary level.

The Kansas City current ratio for librarians at the elementary level is 1 to 643 as compared to 1 to 1500. So they are more than twice what the AAA requirement would require for the number of librarians. In other words, one librarian serves 643 children instead of the AAA standard of one to 1500.

Q What about the junion [sic] high? Now, understand that KCMSD doesn't have junion [sic] highs anymore.

A Middle school, junior high. We don't vacillate back and forth between the terms because each district has a different kind of term, but anyhow, the junior high age grouping, the requirement is 1 to 1,000 and Kansas City has 1 to 642. In the senior high, the requirement is 1 to 1,000 and Kansas City currently has one librarian for every 819 children. So they meet and in all cases exceed, but in some cases greatly exceed the load on the librarians for the pupil-teacher ratio.

Q Now, what about the suburban districts surrounding KCMSD?

A Here what the picture will show is that the ratio that's available in the Kansas City School District greatly - greatly exceeds what's available in the suburban school **[468]** districts in almost all cases. Now, not every case. For example, Fort Osage has a more advantageous ratio. It has 1 in 405, but from that point on, the suburban school districts are much larger. Lee's Summit has 1 to 1,000 at the elementary level. Raytown has 1 to 1900, almost 2,000. Independence, 1 to 1400. Liberty, 1 to 1500. That's at the elementary level, and the same kind of data is available and reflected for the other levels.

As a matter of fact, at the junior high level there's only two school districts that have a lower librarian ratio than does Kansas City, and conversely, then, all of the suburban school districts, except for those two, except for Grandview and Center, have much higher ratios, much less advantageous ratios at the junior high level. And then the same kind of information at the senior high level. Virtually half of the senior high districts - suburban districts in senior highs have ratios that are much higher than Kansas City in librarians.

Q Does that complete your discussion of the library service and resources?

A That's the resources and the librarians, yes.

Q How about counseling services?

A The same kind of analysis was conducted there and the standard is the number of counselors to the number of pupils, one counselor will serve a certain number of pupils. The **[469]** ratio for AAA requirements are 1 to 1500 at the elementary level, and 1 to 390 at the junior high or middle school level, and then 1 to 390 at the high school level.

Kansas City School District currently at the elementary level has one counselor for every 786 students as compared to the requirement of one to every 1500. So again, almost twice as good as the AAA standard. The junior high and high school standards, the Kansas City ratio is 1 to 352 at the junior high or middle school, and 1 to 279 at the high school level for counselors. And then the data for the suburban school districts is reflected and that is a better ratio than exists in almost all of the suburban districts. There are exceptions at each level, elementary and middle school and in the high school.

Q Can you give me a relative percentage of how many of the suburban districts might have superior resources?

A At the elementary level, the Kansas City ratio is 1 to 786, Fort Osage is 785, so there's one less. Lee's Summit, 719. Hickman Mills is 1,005. Independence is 781. Center 771. Liberty is 231. So they are right in the range of most, exceed some.

At the secondary level, the junior high, Kansas City is at 352 and there's only a few suburban districts that have a better ratio than that. For the most part, the suburban districts do not have a better ratio than that, and **[470]** the same for the high school, the ratio of 1 in 279 at the high school level is better than eight of the suburban school districts.

Q What about art, music and PE?

A The same kind of analysis was conducted there, ratio of how many pupils to the art teacher and how many pupils to the music teacher and PE teacher. Kansas City ratios, I could give the 1 to 400 for art and music and 351 for PE, but those numbers are probably not all that important. In terms of comparability to the suburban school districts, the art, music, and PE ratios for the Kansas City School District are better than any of the other suburban school districts in all the categories, art, music, and PE. They all have higher ratios in those areas.

Q Okay. Dr. Stewart, I'd like to move now to reduced class size. What is your understanding of the educational requirements of the Court for reduced class size?

A The Court wanted to establish maximum class sizes at the various levels to increase the attention that was - for instruction and the opportunity for improvement and the maximum class sizes were K through 3 at 22, and grades 4 through 6 at 27, and then the secondary level, it was maximum load per teacher of 125 students per teacher.

Q To your knowledge, have those class sizes been attained by the KCMSD?

[471]

A Yes, they were fully attained in the '88-89 school year, and recognized by this Court in its July '89 order.

Q Okay. Prior to the Court's remedial order of June 14, 1985, were the class sizes in those grade groupings in KCMSD higher than the Court's requirement?

A Yes, they were higher, and in some cases significantly higher.

Q Okay. Have the reduced class sizes attained in the '88-89 school year been maintained since that time?

A Yes, they have. I think in all cases except for apparently two. The Court has allowed for two small exceptions, I think effective just this year.

Q Okay. And did that have to do with a very small number of students?

A It's my understanding, yes.

Q In your opinion, has the attainment and maintenance of the reduced class size goals of this remedy since the 1988-89 school year enhanced the level of quality of educational opportunities available to all students in the KCMSD?

A Yes. That's one of the primary things that our department has spoken to for years is increasing the individual attention that's available by a limited number of students in the class, by reducing class size. By reducing the class size, as the Court has done, the Court has assured that the opportunity for increased attention is available in **[472]** absolutely every class in the School District, except for those two exceptions, at every grade level, so the opportunity for increased individual attention to instruction has been assured in every school, every building, every grade, every class.

Q Dr. Stewart, do you also believe that by establishing reduced class sizes, the opportunity for desegregative educational opportunities has been provided and maintained since that time?

A Yes. The opportunity has been there for the years that the program has been in place.

Q How do the class size maximums that are available in KCMSD compare with the class sizes in the suburban districts surrounding KCMSD?

A There, too, I asked the staff to gather the numbers and it was a job of our school data section, which is simply just gathering

numbers of students. We have available to us - I'll preface my remarks by saying this. We have available to us the class loads of every school district, of every class in Missouri, so it's really just a simple gathering of information to analyze and present the information that I have here.

The first thing that we looked at was the grades K through 3, because the Court established a class size of 22, maximum 22. There are no school districts of which I am**[473]** aware, and I don't believe there are any, that have maximum class size loads or requirements of no greater than 22 at this grade level. School districts adhere to standards in classification, either AA or AAA, which are certainly higher than the 22. So we looked at and we divided the class sizes for those that are available at 22 or fewer students and those that are available in the District that have more than - 23 or more students and tried to take a look at that.

In the suburban school districts, the picture is kind of what you might imagine. In all the suburban school districts, there are classes that have no more than 22 students in them, in all the school districts in grades K through 3, but also as you might imagine, there are literally hundreds of classes in the suburban school districts that have more than 23 students at this grade level. For example, Fort Osage has thirty-five classes that serve 855 children of more than 23 in a class. Blue Springs has a hundred classes at this grade level that serve more than - 23 or more students. Lee's Summit has seventy-five such classrooms, Hickman twenty-two, Raytown has a hundred such classrooms, Independence has ninety-four classrooms, North Kansas City ninety-nine. Liberty fifty-one. Park Hill fifty-two. So there's the existence in the suburbans of a great many classrooms serving thousands of students, really, if we were to add all this up, of classes that greatly exceed **[474]** the maximum class sizes that are available here.

Q Is that data for the suburban school districts, is that this year's data?

A That's this year's data, yes. And we do the same kind of comparison for grades 4 through 6, and the only thing that changed there, of course, was the numbers. The maximum class sizes ordered by the Court were 27, so we looked at classes of 27 or fewer and then we looked to see the number of classes that are 28 or more. And the same kind of data. I won't bother to go through the numbers, but every suburban school district does have some classes that are 27 or fewer students. All of the suburban school districts, except for two, except for Liberty and Park Hill, all of the suburban school districts have several classes that exceed the 27 ratio, that have more than 28. So the same kind of analysis. On the comparability question, or standard, what's available in the Kansas City School District at this level, grades 4 through 6 greatly exceeds what would be comparable in the suburban school districts.

Q How about the grades 9 through 12?

A The 9 through 12 we had a little different kind of analysis because the Court established a maximum class load per teacher, 125, so we just simply asked the question what's the average class load in the Kansas City School District at this level, at the secondary level, and what's the average **[475]** class load of the secondary teachers in the other school districts. And again, using this year's data, the average class load in Kansas City School District in the secondary level, grades 9 through 12, is 85.2, so it's significantly below the 125 cap, maximum cap.

The average class size per - let me rephrase that, it's not class size, the average teacher load in the other school districts, in Fort Osage it's 159, Blue Springs it's 161, Lee's Summit it's 116, Hickman Mills, 134, Raytown 120, Grandview 136, Independence 132, and Center 112.

Q Now, let me ask -

A So in summary, it's - in three districts, it's below that cap of 125, but in no districts is it below what's actually - the average that was actually going on in the Kansas City School District of 85.2.

Q Let's move to full day kindergarten. What's your understanding of the Court's educational requirements for full day kindergarten?

A The full day kindergarten program was to expand a very limited program that existed at the time and offer full day kindergarten to more students, available to all students.

Q Now, when you say it was a limited program, are you saying there was some full day kindergarten available in KCMSD at the time?

A Yes, I believe it was primarily Chapter 1 funded at the **[476]** time.

Q And we are talking about the 1985-86 time frame?

A Yes. So it was to expand the program and offer to make it available to all students, not just students that happened to be what we would call Chapter 1 eligible, in other words, have certain kinds of remedial needs, so it was to expand the program, make it available to all the kindergarten age children.

Q What did the Court require in order to do that?

A The requirement was, through some extensive calculations, that the District would need 39 additional kindergarten teachers at that time in order to make this program available to the enrollment at the time.

Q Okay. And when did this program become fully available to the District?

A Again, that was in 1985-86 school year.

Q Has that program been maintained continuously since then?

A Yes, it has.

Q And you have already indicated that there was a small availability of some full day kindergarten programs through Chapter 1 prior to that?

A Right.

Q Okay. Do you know when the reported full day kindergarten enrollment was in 1985-86?

[477]

A It was to be 3,281.

Q Okay. And what is the reported full day kindergarten enrollment in the current school year?

A 3,293, so an increase of twelve.

Q Okay. And how many more full day kindergarten teachers have been added in total since 1985-86?

A The number has gone up from 39 up to 76, so it would be an increase of 37 kindergarten teachers.

Q Over and above the 39 that were originally -

A Over and above the 39.

Q In your opinion, has the District-wide availability of full day kindergarten beginning with the 1985-86 school year enhanced the previous level of quality of the educational opportunities available within KCMSD to all students who want it?

A Yes. The reason I say that is that prior to the Court's order it was available only to a limited number of students and actually students that were, as I said Chapter 1, eligible. In other words,

they had certain kinds of problems that needed to be remediated. The Court's order made the program available to all students at that age level.

Q Okay. In terms of the availability of full day kindergarten programs, how does KCMSD compare with the school districts throughout the rest of the state?

A There are 173 AAA classified school districts in **[478]** Missouri out of 540 that offer a full day kindergarten program. Most of those are predominantly again Chapter 1 funded and service a specific kind of student, so it is available in the state in 173 school districts. There are - let me go on. There are really 288 full day kindergarten programs, but then the others are in AA classified schools and some of them are in unclassified schools. They are not classified at all.

Q All right. And what would be the difference in the program from a AA school to a AAA school?

A Again, it would be - the difference in this particular kind of program I think would be the kind of children that are served, more so than the classification as such. The kind of children that are served would be more Chapter 1 eligible types of children.

Q What are Chapter 1 eligible children, generally?

A Generally they are children that have educational deprivation that's probably caused by some economic deprivation, also, and it would result in the need for remedial reading kinds of programs.

Q Okay. Do you know whether any of the school districts, suburban school districts surrounding the KCMSD on the Missouri side, offer a full day kindergarten?

A We know that none of the suburban Kansas City school districts offer a full day kindergarten program. They all **[479]** offer half day kindergarten programs.

Q Okay. I want to move now to extended day programs. What's your understanding of the Court's educational requirement for the extended day programs?

A The extended day program really started out as the before and after school tutoring program and that really was the intent. It was to provide an opportunity for increased instructional time either before school or after school, provide an opportunity for parents perhaps to leave their children off and receive a little additional instruction time in the morning, or maybe to leave the children there at school a little longer in the afternoon to receive a little additional instruction. And it was started originally in ten schools.

Q And what was the program originally called?

A Before and after school tutoring.

Q When was the program established as an operational program?

A That, too, was one of the 1985-86 programs.

Q And has it continued continuously since that time?

A Yes, it has. It has continued, although not in the ten schools. It's down to six schools. It's available now I believe in six schools.

Q Now, we are talking about the traditional non-magnet schools?

[480]

A Yes, traditional, not the magnet.

Q Is the program also available in magnet schools?

A Yes, it is.

Q Did the program exist in the KCMSD prior to the 1985-86 school year?

A I don't believe it did. I don't believe it existed, but if it did exist, it was certainly limited and not to the - didn't have the curriculum and the offering and the scope that it has in this sense, the opportunity that we're providing here for cross-age tutoring and peer tutoring and parental involvement. I wouldn't want to say there wasn't some extended learning time, but very little.

Q In your opinion, Dr. Stewart, has the continuous existence of the extended day program beginning in the 1985-86 school year enhanced the level of quality of the educational opportunity for students in the Kansas City, Missouri School District?

A Yes.

Q In what facets?

A Well, again by making the program available and it's been consistently available, and available to about a thousand students that participate in it. You are offering an extended learning time for that group of students to improve the student achievement. It's an opportunity for those children to improve their academic performance, and **[481]** it's been available to - to whoever.

Q And has it also provided working parents, both minority and non-minority parents, a place to leave their children both before and after school?

A Yes, it has.

Q Has that been offered continuously?

A To my understanding, yes, it has.

Q And has the existence of the program made available on a continuous basis the opportunity for retention and attraction of non-minority students?

A Yes. The opportunity provided by this program has been there for both - the attraction to minority and the non-minority involvement and the opportunity for improved instruction.

Q Now, Dr. Stewart, does DESE collect data on the availability of extended day programs throughout the State?

A Well, we have not in the past.

Q Why is that?

A We are beginning to do that, and actually this is the first year. Well, these are relatively new programs throughout the state. They have not been in existence throughout the state, the extended learning time and the extended day kinds of programs, so we're beginning, and this is the first year that we are beginning to gather data on this kind of program.

[482]

Q Dr. Stewart, I'd like to move now to summer school. What's your understanding of the educational requirement for summer school of the Court?

A Well, again, it's an extended learning kind of program. Instead of before and after school, though, it's in the summer and it was designed or intended to provide remedial, developmental, and some enrichment programs for the students in grades K through 12.

Q Did that requirement vary by level?

A Yes, it did.

Q What did it require for elementary?

A Well, I think that the elementary were mostly the remedial, and developmental and enrichment was at the secondary level.

Q Okay. When was the summer school component of the desegregation plan first fully operational?

A This is again one of the '85-86 programs. It was the summer of '85, actually.

Q And has it remained in operation each and every summer session since that time?

A Yes, it has.

Q Will it be operating this summer?

A I'm sure it will be.

Q Was summer school offered in the KCMSD prior to the 1985 school year?

[483]

A Yes, it was, but again, it was a limited offering. There is some state funding available for this program so it was offered.

Q Do you know how many sites summer school is offered at in the KCMSD?

A Kansas City currently is offering this program in nine school buildings, grades K through 12.

Q Okay. And in your opinion, has the operation of the summer school program provided an opportunity for students in the KCMSD to obtain an enhanced level of quality of education?

A Yes, it has. What has occurred is the number of children that are participating has increased significantly and the number of sites where the children can go has increased and the kinds of programs that the summer school offers has increased because of the Court's order.

Q How does KCMSD compare with the surrounding suburban districts in terms of the summer school programs offered?

A The kind of analysis that we did there is we took a look at the percentage of students that participate in summer schools. It wouldn't work to just look at the numbers because the numbers of children in the various districts differ. The percentage of children that participate in the Kansas City School District is 1.71 percent, and that sounds small but really it's not if you understand the summer school **[484]** program. That percentage of the children that participate is greater than any of the other suburban percentage rates or participation rates in this area for summer school, and greatly different that what goes on statewide on an average.

Q Now, have you made some specific comparisons with some of the suburban districts?

A Yes.

Q Could you give the Court an idea of the comparison.

A Again, we are dealing with percentages. The Fort Osage School District has less than one percent, actually it's .70 percent. Blue Springs is the only one that's really relatively close to the Kansas City School District. It has 1.16 percent of its children participate in the summer school program. Lee's Summit has 1.13. Hickman Mills 1.08. Raytown less than one half of one percent. Grandview considerably less than one half of one percent, .31. Independence has 1.34 percent. Center is one percent. North Kansas City 1.33, and Liberty is less than one half of one percent and Park Hill is just a little over one half of one percent. So the percentages are significantly lower than the percentages or the number of children that participate in the Kansas City School District.

Q And relative to a comparison of the suburban districts and KCMSD, your conclusion from those numerical comparisons is what?

[485]

A The opportunity for summer school in the Kansas City School District is greatly enhanced and it's much more widely available in Kansas City, the nine sites, as compared to the suburban school districts, and more - a higher percentage of the Kansas City school children participate in summer school than in any of the other suburban school districts.

Q Okay. Moving to early childhood education, what's your understanding of the Court's educational requirement for that program?

A That program, the Court directed that the District and state get together and implement the state's early childhood education program.

Q Did it also have a language component?

A Yes, the District asked and the Court agreed to include a language development component in that program.

Q And whose idea was that?

A That was the District's.

Q Okay. And that was included?

A Yes.

Q Do you know when the early childhood education program began fully operating?

A That was in the 1986-87 school year when that program was implemented.

Q To your knowledge, has the program operated continuously ever since?

[486]

A Yes, it has.

Q And does the Department of Elementary and Secondary Education work on a continuing basis on this program?

A We have continued to work with the District. I think the negotiations have kind of wound down a little bit. It seems to be an established kind of program.

Q Okay. In your opinion, has the continuous availability of this program enhanced the quality of educational opportunity in the KCMSD?

A Yes, it has.

Q And how has it done that?

A Well, the program offers a couple of services. It offers screening services to children ages, I think it's birth through four, and it offers services to families, families of children who are in ages in zero to two, birth to two, and then another kind of services to families who have children ages three and four. So it has provided the additional funding and made available more services to the children, more services to the family.

Q And at your instruction and under your supervision, has the Department collected some data relating to the early childhood education program?

A Yes, we have.

Q What does that data reveal?

A The question I asked of our supervisors in our early [487] childhood program was really I wanted to know how many parents as teachers, educators, the Kansas City School District had and I wanted to know also what was their load, how many

families did they serve, and how that compared with what was available in the suburban school districts.

Kansas City currently for this year has 92 full time parent educators that provide these kinds of screening services and provide the kinds of services to families, and their load per parent educator is one parent educator to 32 families. And then I wanted to know how that compared to what was available in the suburban school districts, the 92 full time and the 1 to 32 load. All the other suburban school districts offer this program. They have a mixture, whether or not they are parent educator or full time or part-time. Some are each, they have a couple of each. But as far as the number of educators, the Kansas City School District has more parent educators than the Fort Osage, Lee's Summit, Raytown, Grandview, Center, Liberty, Park Hill, Independence, and Blue Springs School Districts put together.

Q You're not talking about more than each one individually.

A No, I'm talking about put together. So it's a greatly enhanced Early Childhood Program and it would certainly far exceed what would be available in the suburban school districts.

[488]

The second part of that question is well, what's their load, what's their load for the parent educators. In the Kansas City School District, each parent educator works with about 32 families and that is the lowest load per parent educator of all the suburban school districts. Some of them work with as high as fifty and a hundred families to one parent educator. And I could recite that date.

Q Well, we won't go through the list again. Is there any other factor that gives you an indication that the program has been fully implemented since the 1986-87 school year?

A This is one of the programs that the - that has been expanded. I think it's gone through two expansions and I think that the logic for the expansion was that it was implemented and it was successful and the two expansions, I believe there was one in '87 and another one in '91, so that tells me the program is implemented and successful and therefore, expanded.

Q Let's move now to the '86-87 magnets. What's your understanding of the Court's requirement for that initial set of magnet schools?

A Kind of generally to assist in the desegregative and educational experiences that would be available to the Kansas City, Missouri, School District and to become also a part of the Court's effort to improve the student achievement, District-wide student achievement.

[489]

Q Was there also an application to reduce class size component?

A There was also that.

Q And the Court required that?

A Yes.

Q When was this set of magnets first operational?

A These are known as the '86-87 magnets so that was the year they were implemented.

Q Did these magnets actually exist prior to that?

A The schools in the magnets to some degree existed prior to that, yes. The source of funding was enhanced by the order, but the schools were there and the themes were generally there. They were referred to then I believe as clusters.

Q Okay. And has this program been available continuously since the '86-87 school year?

A Yes, it has.

Q In your opinion, has the continuous operation of these magnet schools from that time up to the present enhanced the level of quality of the educational opportunities available to students attending KCMSD?

A Yes, again by the enhanced resources, those programs have increased the opportunities for improved student achievement for the students who go to those schools.

Q Now, how does the KCMSD compare with the suburban school **[490]** districts in terms of this particular enhanced educational offer?

A Well, I think most people know the suburban school districts do not have school buildings that have specific focuses as do the magnets, so there's really no comparison. They just exceed what is available to the suburban school districts by having the magnet schools, the magnet programs.

Q Now, do you know whether or not KCMSD itself has indicated a view of the level of implementation of success of these particular magnets?

A Yes, that's part of the evaluations that the District has done in the normal course of their business, and in some of the readings I think they have referred to the magnets as mature and successful and basically meeting the District's 60-40 goals the District has established.

Q All right. Let's move now to the effective schools program, Dr. Stewart. What's your understanding of the Court's requirement for the effective schools component?

A The effective schools component was really designed or intended to provide enriched resources specifically to focus on improving student achievement and raising test scores by measuring and using a couple of tests, really, and to identify the kinds of programs that would do that at the local level, at the school building level, by involving parents in the community and the teachers. So identifying **[491]** programs that were designed specifically to improve student achievement.

Q Were there any ratio requirements in terms of how the money was allocated?

A Yes. There was really two sides to that. The school districts that had -

Q School districts?

A School buildings, I'm sorry, that had a 90 percent or more minority enrollment received a higher allotment from the Court than the school districts that were below 90 percent. I believe there were twenty-five schools in the 90 percent or more and forty-three schools in the other ratio balances.

Q Dr. Stewart, when was the program implemented?

A Again, that was a 1985-86 program.

Q And has the program been available continuously since that time?

A Yes.

Q And has the availability of that program enhanced the quality of educational opportunity in the KCMSD over the quality that was available before that school year?

A Yes.

Q And how is that?

A Well, here again, what the Court allowed or provided was additional money for each school that were high in minority concentrations, twenty-five schools an additional amount of **[492]** money and for the other forty-three schools, a slightly less amount of money, but for each school there was monies that were specifically targeted to do certain things, a very limited number of certain things. And so when you take a look at the opportunity that's provided by the additional monies and then the opportunity that's multiplied by the number of years those additional monies were available, I'd have to conclude that the opportunity to improve student achievement existed.

Q And has the availability of the program also enhanced the opportunity to increase the amount of desegregation within the school district?

A The opportunity was there.

Q All right. Is such a program available in the surrounding suburban school districts?

A No.

Q Is there funding available for a program like this from the State?

A No. There's no funding available for these kinds of programs.

Q Okay. Have you reviewed the KCMSD August 1991 evaluation of the effective schools program relative to the effectiveness of that program?

A Yes, I did.

Q What did that evaluation do?

[493]

A Generally - not generally, but what they said, the program was not successful in meeting the objectives, math and reading objectives. As a matter of fact, it was only 17 percent of the buildings met I believe it was the reading objectives and only about 30 percent of the buildings met the math objectives. So a very low rating on meeting the objectives.

Q In light of that, do you still hold to the view you expressed just a moment ago relating to the improved quality of the educational opportunity provided by this program?

A Yes. The report didn't say why the results were what they are so I really don't know why the results were that way, but the opportunity and the enriched resources were available for - since 1985-86 and the opportunity was available in each school, so we're not just saying it was a limited opportunity. It was available in each school for an extended period of time to improve student achievement. The opportunity was there.

Q Thank you. Now, Dr. Stewart, I want to ask you about an issue which the District has raised in its pleadings. If the Court were to adopt the State's view and declare that these programs are unitary and are eligible for a decrease in the desegregative funding that has been provided, what do you believe would happen to those programs?

A Well, the purpose of my testimony is not to say to end [494] the programs. That's not the purpose. And I may elaborate on that later, I don't know, but that's not what I'm saying. The question of what will happen to the programs, that becomes an issue for the District to resolve. And I have to believe that the District knows that the ongoing supervision, or the supervision will not go on forever, that there will come a time when the District is making plans for the takeover of the various programs. I think that's probably the prudent thing to do. I guess I don't

really know that that's occurring. But I would have to believe that the prudent thing to do for the District would be to make plans for the future when they can take over the programs.

Similarly, I'd have to believe that the District would plan to continue those programs that helped elevate itself, the programs that helped it achieve AAA, the programs that helped it achieve comparability that is greater than what is available in the suburban school districts. So I think that the District has to plan for those kinds of things, and I'm assuming that they are doing that.

And I think a third component of that, and a component that is obvious in every school district, is that the District has to plan for the support of the community and continue to support a greatly enhanced and upgraded school system.

Q Do you believe that the patrons of the Kansas City, [495] Missouri, School District will continue to support those systems if asked to do so?

A The patrons of the St. Louis School District are doing that, and -

Q What's your evidence that the patrons in St. Louis are supporting the programs there?

A Well, essentially it comes down to voting for tax issues and making sure that the monies are there to do things. Every school district in Missouri is facing financial problems, but I think that's a secondary issue to this.

Q Was there a recent levy election in St. Louis?

A Yes.

Q What was the result of that election?

A Oh, Mr. Fields, you are catching me off guard here. It was a successful election, but I don't know -

Q Did that election increase the funding for the school district?

A Yes.

Q Okay.

A But the patrons in every school district have that same choice and option and opportunity, and I guess I would have to believe that the District and the patrons can work together to maintain an enhanced school system once the Court has seen to it that it has been established.

Q Now, is the State's position one that you believe takes **[496]** into account this concern with the reaction of the patrons and the continued support necessary to maintain these programs after funding from the desegregation case is cut off?

A You're going to have to repeat that one for me.

Q Does the State's position take into account the concern with the continued support of the patrons?

A I see. Yes. I made the statement that I assumed the District was making plans, and that may not be right. So what the State has said in its motion, that if the Court determines that the plans have been implemented and met the goals that have been established as far as comparability and meeting AAA standards, but if the District is perhaps not as ready as we think that it should be to take over, then they could phase that responsibility back into the District over a two- or three-year period.

Q Now, Dr. Stewart, do you agree with the premise that each of the programs about which you have testified today is a part of a one - a whole program which has to be looked at as a whole program, each part being completely interdependent on all the other parts, such as that court supervision and control could not - for discrete components of that programs could not be terminated?

A No, I do not.

Q Do you believe that each of the components of the Year **[497]** VIII budget could be measured against the provision of an equal opportunity within the KCMSD?

A I believe that they are distinct and separate components. They are - originally they were a part of a plan to upgrade the system, to upgrade it in terms of AAA standards and classification standards, and to upgrade it in terms of comparability to the suburban school districts, to make it equal to or above the average of what would be available in the average suburban school districts. There was no talk that I can recall, from sitting in and listening to the various discussions and debates and reading the motions, that this component, these components and what is in the Intra-District plan to upgrade and improve student achievement, there was no talk then that these components formed the basis or the floor for something to come along in the future, for example, the magnet, or even the capital improvements program. These programs were designed in intra-district to upgrade the system in terms of AAA, improve student achievement, improve opportunity for desegregation attractiveness and comparability, and they stand alone. And actually, when you think about it, take the early childhood program and the early childhood program with what its goals and purposes are and it's not really very closely connected to the goals and purposes of a summer school program and the two are not connected and one doesn't stand or fall with what **[498]** happens on the other one, and I think the other programs are similar to that.

Q Okay. Dr. Stewart, do you agree with the premise that the individual components of the remedy about which you have testified can't be considered fully implemented until the District's own internal guidelines of a district-wide 60-40 ratio and meeting the national norms for achievement testing have been met?

A No, I don't believe that, either.

Q Why not?

A Well, there's two parts to that. One has to do with the 60-40 ratio, and it's my understanding that that's a ratio the District deems to be desirable or attractive or would like to have. It's not a ratio that has been identified for these components, for racial balance or for desegregative attractiveness. As we have been working on implementing these components and monitoring the progress, we view that the goal of these components was to increase the opportunities for student achievement, improved student achievement, to enhance the potential for desegregative educational experiences and to enhance the likelihood of desegregative educational experiences by the rulings that come out of the Court order, but we didn't see in there any particular kind of specific racial balance that was established by the Court. A 60-40 racial balance seems to be **[499]** very impractical and I would venture to say not at all achievable. But even setting that aside, it was not a goal that was available or was identified for these particular programs.

Now, the other part of that question has to do with the testing, or the student achievement up to a certain level. I'm not aware that that level was established prior to the Year VIII budget hearing where the students would achieve at the 50 percentile of what's going on in the nation, the norm for the nation, 50 percentile, and I'm not exactly sure what the District means by that. Probably have to look into that. But if the District means the 50 percentile for every subject matter for the District, for probably every grade level, I would assume every grade level and every subject mater, that would be an extraordinarily difficult, almost virtually impossible goal to achieve. National norms are established by using national data. Test norms are established by using data from students all over this country, big schools, small schools, rural schools, urban, metropolitan, just the whole gamut of schools. It would be virtually impossible for a school district, any school district, or in this case the Kansas

City School District, to be reflective of the nation as a whole. It would be an unachievable goal.

MR. FIELDS: Thank you, Doctor. **[500]** No further questions, Your Honor.

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APPENDIX X

Excerpts from Cross-Examination of Dr. Terrance Stewart (May 28, 1992)

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[525]

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THE COURT: Let me put some of this to rest. The Court's goal was to integrate the Kansas City, Missouri, School District to the maximum degree possible, and all these other matters were elements to be used to try to integrate the Kansas City, Missouri, schools so the goal is integration. That's the goal. And a high standard of quality education. The magnet schools, the summer school program and all these programs are tied to that goal, and until such time as that goal has been reached, then we have not reached the goal. But when Dr. Stewart says no particular goal has been set, I think he's in error. The goal is to integrate the Kansas City, Missouri, School district. So I think we are wasting our time. We are not wasting our time when we're talking about certain segments of the goal having been fully implemented, but to me it indicates some degree of success, providing that we were correct in setting out on a program in the first place for [526] the purpose of integrating the Kansas City, Missouri, School District. Now, that's the goal. If the Kansas City, Missouri School District had not been segregated, the case would not have been here in the first place. It's no constitutional violation to not provide quality free education. If that had been the issue, we wouldn't be here. If so if that gets rid of some of the exchange and arguments -

MR. BENSON: Judge, I agree but with one bit of explanation. The Court also found that as a result of the prior segregation the School District suffered an inferior education, and under the Milliken 2, it had -

THE COURT: That's part of the vestiges and that's part of the reason that we're striving to integrate.

* * *

[531]

* * *

Q Dr. Stewart, do you, testifying on behalf of the State as to its position about opportunity, do you have an opinion as to whether or not the educational deficits that you acknowledged were vestiges of the prior segregation have been eliminated to the extent practicable in the Kansas City School District?

A No, that's not the purpose of my testimony, Mr. Benson.

[532]

Q You have no opinion in that regard?

A That's not the purpose of my testimony.

Q Do you have an opinion in that regard?

A It's not the purpose of my testimony.

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COMPARISON OF KCMSD TEACHERS' SALARIES WITH AVERAGE URBAN TEACHERS' SALARIES IF DESEGREGATION FUNDING FOR SALARIES CEASES

MINIMUM SALARIES FOR TEACHERS WITH BACHELOR'S DEGREES

Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	17,000	18,345	1,345	7.9%
1987-88	18,000	19,270	1,270	7.1%
1988-89	18,000	20,270	2,270	12.6%
1989-90	18,200	21,395	3,195	17.6%
1990-91	22,215	22,465	250	1.1%
1991-92	22,215	23,130	915	4.1%
1992-93 (Proj.)	17,000	24,055	7,055	41.5%

MAXIMUM SALARIES FOR TEACHERS WITH BACHELOR'S DEGREES

Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	23,388	28,425	5,037	21.5%
1987-88	25,560	29,910	4,350	17.0%
1988-89	25,560	31,390	5,830	22.8%
1989-90	25,844	34,145	8,301	32.1%
1990-91	31,545	35,980	4,435	14.1%
1991-92	31,545	36,645	5,100	16.2%
1992-93 (Proj.)	23,388	38,111	14,723	63.0%

Note: KCMSD salaries for 1991-92 assume no increase from previous year.
KCMSD salaries for 1992-93 assume no extension of the salary order.
Urban average salaries for 1992-93 are projected assuming a
4 percent increase from the previous year.

COMPARISON OF KCMSD TEACHERS' SALARIES WITH AVERAGE URBAN TEACHERS' SALARIES IF KCMSD'S PROPOSAL IS ADOPTED BY THE COURT

MINIMUM SALARIES FOR TEACHERS WITH BACHELOR'S DEGREES

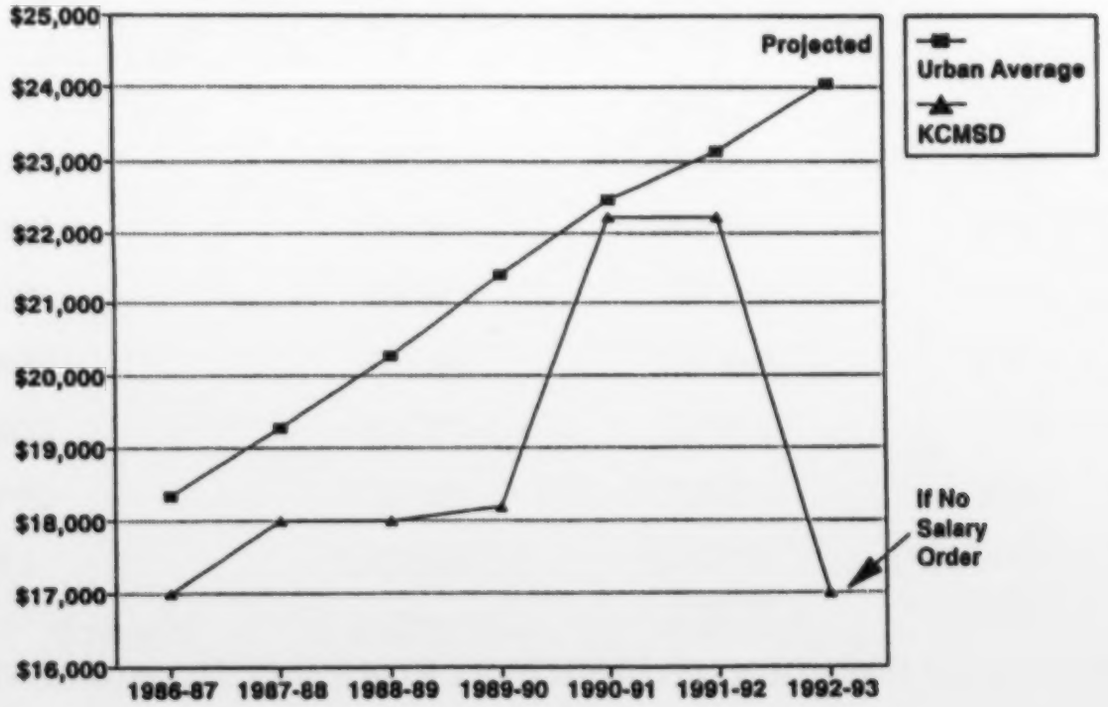
Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	17,000	18,345	1,345	7.9%
1987-88	18,000	19,270	1,270	7.1%
1988-89	18,000	20,270	2,270	12.6%
1989-90	18,200	21,395	3,195	17.6%
1990-91	22,215	22,465	250	1.1%
1991-92	22,215	23,130	915	4.1%
1992-93 (Proj.)	22,215	24,055	1,840	8.3%

MAXIMUM SALARIES FOR TEACHERS WITH BACHELOR'S DEGREES

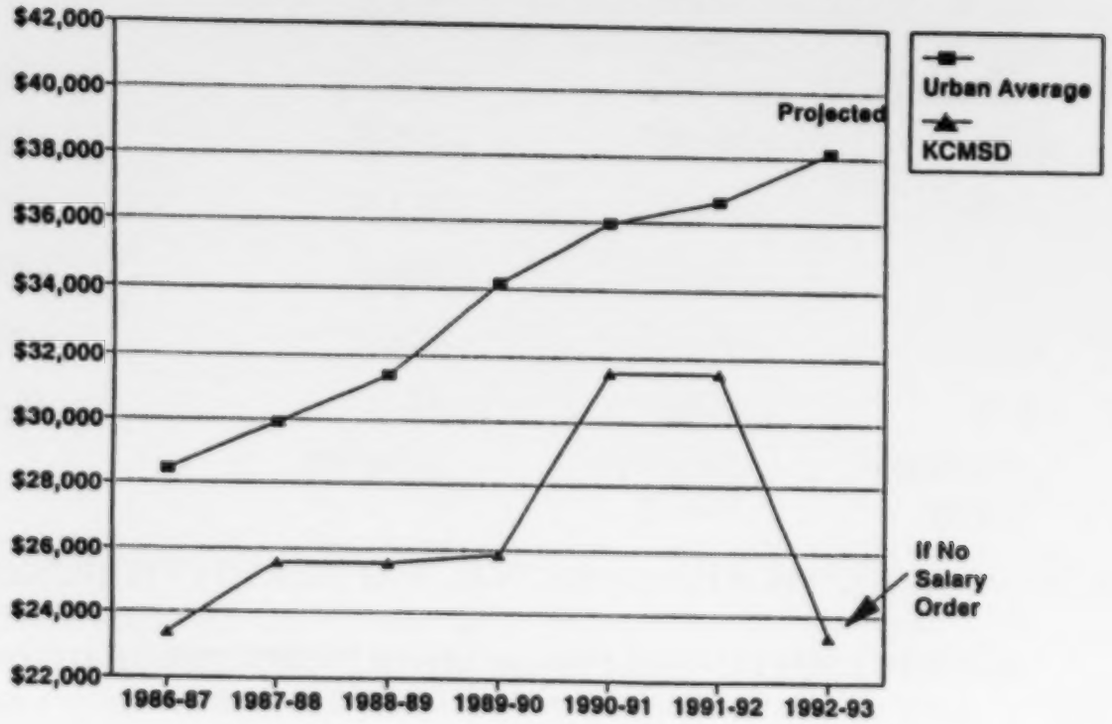
Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	23,388	28,425	5,037	21.5%
1987-88	25,560	29,910	4,350	17.0%
1988-89	25,560	31,390	5,830	22.8%
1989-90	25,844	34,145	8,301	32.1%
1990-91	31,545	35,980	4,435	14.1%
1991-92	31,545	36,645	5,100	16.2%
1992-93 (Proj.)	31,545	38,111	6,566	20.8%

Note: KCMSD salaries for 1991-92 assume no increase from previous year.
KCMSD salaries for 1992-93 assume adoption of KCMSD's proposal.
Urban average salaries for 1992-93 are projected assuming a
4 percent increase from the previous year.

Minimum Salaries for Teachers with B.A. Degrees
National Urban Average Compared with KCMSD



Maximum Salaries for Teachers with B.A. Degrees
National Urban Average Compared with KCMSD



COMPARISON OF KCMSD TEACHERS' SALARIES WITH AVERAGE URBAN TEACHERS' SALARIES IF DESEGREGATION FUNDING FOR SALARIES CEASES

MINIMUM SALARIES FOR TEACHERS WITH MASTER'S DEGREES

Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	17,754	19,670	1,916	10.8%
1987-88	19,890	20,640	750	3.8%
1988-89	19,890	22,385	2,495	12.5%
1989-90	20,111	23,570	3,459	17.2%
1990-91	24,548	24,760	212	0.9%
1991-92	24,548	25,515	967	3.9%
1992-93 (Proj.)	17,754	26,536	8,782	49.5%

MAXIMUM SALARIES FOR TEACHERS WITH MASTERS'S DEGREES

Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	27,744	32,630	4,886	17.6%
1987-88	30,510	34,240	3,730	12.2%
1988-89	30,510	35,825	5,315	17.4%
1989-90	30,849	38,870	8,021	26.0%
1990-91	37,654	40,910	3,256	8.6%
1991-92	37,654	41,920	4,266	11.3%
1992-93 (Proj.)	27,744	43,597	15,853	57.1%

Note: KCMSD salaries for 1991-92 assume no increase from previous year.
KCMSD salaries for 1992-93 assume no extension of the salary order.
Urban average salaries for 1992-93 are projected assuming a
4 percent increase from the previous year.

COMPARISON OF KCMSD TEACHERS' SALARIES WITH AVERAGE URBAN TEACHERS' SALARIES IF KCMSD'S PROPOSAL IS ADOPTED BY THE COURT

MINIMUM SALARIES FOR TEACHERS WITH MASTER'S DEGREES

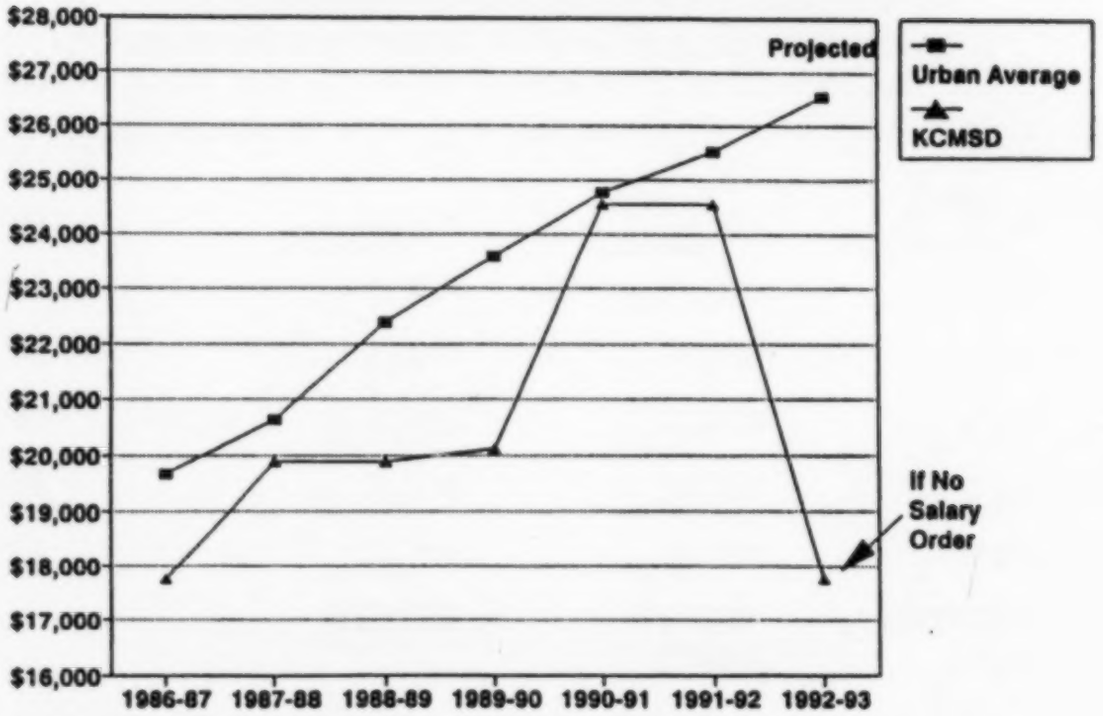
Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	17,754	19,670	1,916	10.8%
1987-88	19,890	20,640	750	3.8%
1988-89	19,890	22,385	2,495	12.5%
1989-90	20,111	23,570	3,459	17.2%
1990-91	24,548	24,760	212	0.9%
1991-92	24,548	25,515	967	3.9%
1992-93 (Proj.)	24,548	26,536	1,988	8.1%

MAXIMUM SALARIES FOR TEACHERS WITH MASTERS'S DEGREES

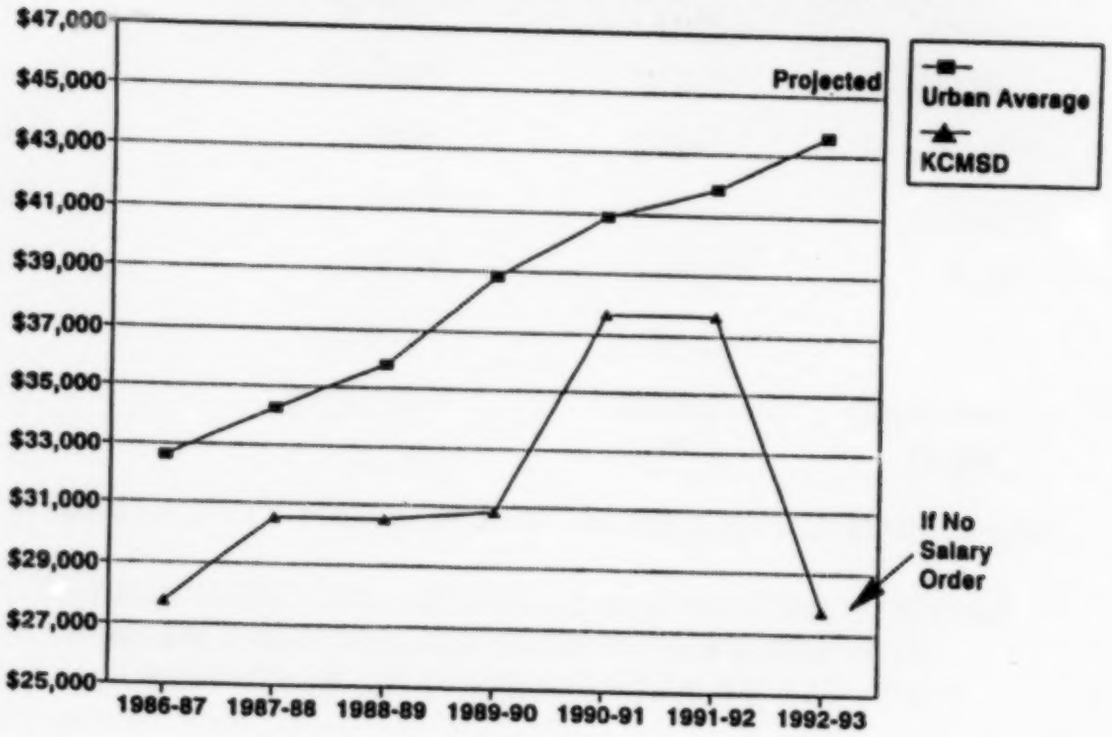
Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	27,744	32,630	4,886	17.6%
1987-88	30,510	34,240	3,730	12.2%
1988-89	30,510	35,825	5,315	17.4%
1989-90	30,849	38,870	8,021	26.0%
1990-91	37,654	40,910	3,256	8.6%
1991-92	37,654	41,920	4,266	11.3%
1992-93 (Proj.)	37,654	43,597	5,943	15.8%

Note: KCMSD salaries for 1991-92 assume no increase from previous year.
KCMSD salaries for 1992-93 assume adoption of KCMSD's proposal.
Urban average salaries for 1992-93 are projected assuming a
4 percent increase from the previous year.

Minimum Salaries for Teachers with M.A. Degrees
National Urban Average Compared with KCMSD



Maximum Salaries for Teachers with M.A. Degrees
National Urban Average Compared with KCMSD



COMPARISON OF KCMSD TEACHERS' SALARIES WITH AVERAGE URBAN TEACHERS' SALARIES IF DESEGREGATION FUNDING FOR SALARIES CEASES

MINIMUM SALARIES FOR TEACHERS WITH Ph.D DEGREES

Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	18,828	22,235	3,407	18.1%
1987-88	24,156	23,470	(686)	-2.8%
1988-89	24,156	24,500	344	1.4%
1989-90	24,424	25,745	1,321	5.4%
1990-91	29,813	27,055	(2,758)	-9.3%
1991-92	29,813	27,900	(1,913)	-6.4%
1992-93 (Proj.)	18,828	29,016	10,188	54.1%

MAXIMUM SALARIES FOR TEACHERS WITH Ph.D. DEGREES

Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	28,833	36,315	7,482	25.9%
1987-88	36,000	38,270	2,270	6.3%
1988-89	36,000	40,180	4,180	11.6%
1989-90	36,400	43,595	7,195	19.8%
1990-91	44,430	45,840	1,410	3.2%
1991-92	44,430	47,195	2,765	6.2%
1992-93 (Proj.)	28,833	49,083	20,250	70.2%

Note: KCMSD salaries for 1991-92 assume no increase from previous year.
KCMSD salaries for 1992-93 assume no extension of the salary order.
Urban average salaries for 1992-93 are projected assuming a
4 percent increase from the previous year.

COMPARISON OF KCMSD TEACHERS' SALARIES
WITH AVERAGE URBAN TEACHERS' SALARIES
IF KCMSD'S PROPOSAL IS ADOPTED BY THE COURT

MINIMUM SALARIES FOR TEACHERS WITH Ph.D DEGREES

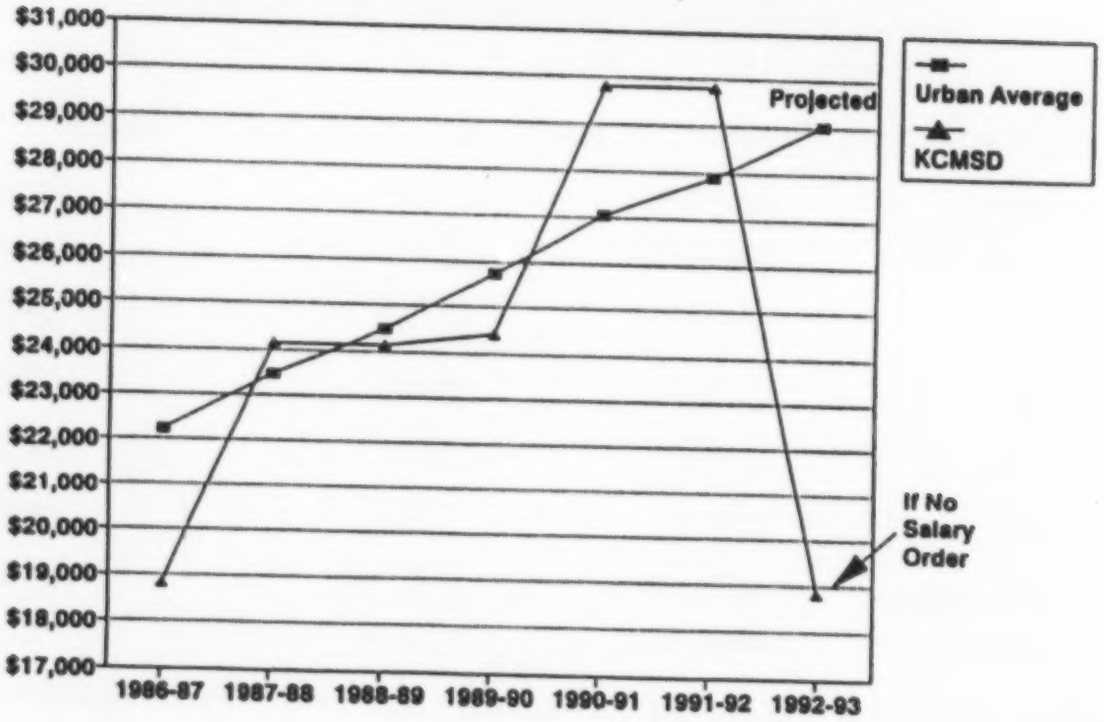
Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	18,828	22,235	3,407	18.1%
1987-88	24,156	23,470	(686)	-2.8%
1988-89	24,156	24,500	344	1.4%
1989-90	24,424	25,745	1,321	5.4%
1990-91	29,813	27,055	(2,758)	-9.3%
1991-92	29,813	27,900	(1,913)	-6.4%
1992-93 (Proj.)	29,813	29,016	(797)	-2.7%

MAXIMUM SALARIES FOR TEACHERS WITH Ph.D. DEGREES

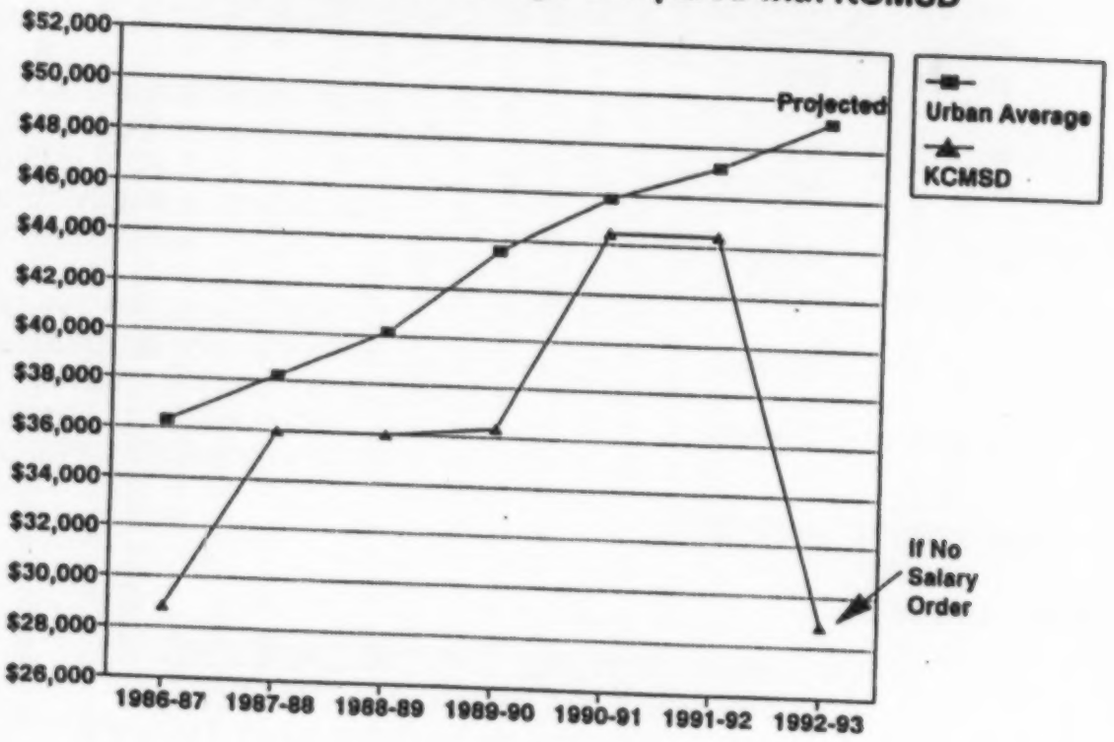
Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	28,833	36,315	7,482	25.9%
1987-88	36,000	38,270	2,270	6.3%
1988-89	36,000	40,180	4,180	11.6%
1989-90	36,400	43,595	7,195	19.8%
1990-91	44,430	45,840	1,410	3.2%
1991-92	44,430	47,195	2,765	6.2%
1992-93 (Proj.)	44,430	49,083	4,653	10.5%

Note: KCMSD salaries for 1991-92 assume no increase from previous year.
KCMSD salaries for 1992-93 assume adoption of KCMSD's proposal.
Urban average salaries for 1992-93 are projected assuming a
4 percent increase from the previous year.

Minimum Salaries for Teachers with Ph.D. Degrees
National Urban Average Compared with KCMSD



Maximum Salaries for Teachers with Ph.D. Degrees
National Urban Average Compared with KCMSD



KANSAS CITY MISSOURI SCHOOL DISTRICT
SALARY PACKAGE FOR 1992-93
ESTIMATED COST PROJECTIONS

	PROPOSED	CURRENT AMOUNT ALLOCATED	ADDITIONAL FUNDS NEEDED
MAINTAIN CURRENT TEACHER SALARY LEVEL FOR TEACHERS CURRENTLY BUDGETED	35,016,077	33,417,873	1,598,204
PROVIDE CURRENT TEACHER SALARY LEVE FOR TEACHERS PROJECTED FOR YEAR VIII	564,715	0	564,715
MAINTAIN CURRENT SALARIES OF OTHER EMPLOYEES	10,654,870	9,166,659	1,488,211
PROVIDE EQUITY ADJUSTMENTS	1,102,388 (1)	0	1,102,388
LENGTHEN SCHOOL YEAR FOR ELEMENTARY PRINCIPALS (15 DAYS)	231,866	0	231,866
MAINTAIN INSERVICE DAYS FOR NEW TEACHERS	261,746	213,638	48,108
PROVIDE FIVE DAYS OF PARAPROFESSIONAL INSERVICE	220,688	220,688	0
MAINTAIN SUBSTITUTE RATE AT $75 DAY	621,130	450,000	171,130
MAINTAIN EXTRA-CURRICULAR PAY RATES	568,911	675,000	(106,089)
RESERVE	500,000	656,142	(156,142)
TOTAL	49,742,391	44,800,000	4,942,391

(1) The prior estimated cost projection for equity adjustments submitted with the District's salary proposal was $1,212,704.

APPENDIX AA

Excerpts from Testimony of Dr. Walter Marks
(June 10, 1992)

* * *

[81]

* * *

Q Is the salary proposal that the district had before the court important in the district carrying out its desegregation plan?

A Oh, absolutely.

Q Explain your answer, please?

A It seems to me if you assess in a school district, the major areas that make a school district productive for young people, and that is what we are supposed to be about, is the quality of teaching that is being performed in the classroom. And it seems to me if you are not paying adequate wages to people in the classroom delivering that instruction to young people, you are going to get a teaching staff that feels to some degree demoralized. They feel inferior to other people if you are paying them poverty level wages. And as a result, it impacts their delivery system to young people.

I think the other issue that you get into is the kind of conceptuality in the community, how you pay your people. And those usually at the bottom end of a pay scale have a different kind of respect from a [82] community than those being paid an adequate wage. So I think it even boils over into the community.

The last point I would make, why I think it is so imperative we continue this is that you also get into the issue of what people feel they have been promised, what people feel is a workable wage and what they should be paid to do that. And our teachers, I think, have made yeoman progress in implementing this plan.

And to have it continue at the level where we are at right now is absolutely crucial. And I think to remove it would cause massive problems in those areas.

Q And other than teachers, which you have just described, are other KCMSD employees important to the desegregation plan?

A Absolutely. As we testified the last time we were here, I think that all of this makes a total program, whether it is salaries, whether it is teachers or administrators, custodians, secretaries, to get this organization moving and get it to be proud of itself. And to really go out and be proud of what has been accomplished here and to help sell those accomplishments takes everybody in the district. It takes secretaries. People will say how do they impact the educational system. They're the first line of defense. They're usually the people that everybody has to get through. And **[83]** it depends a lot how they relate to the public. So they have a integral part just like everybody else does.

Q What will happen if the district's salary proposal is not approved?

A Well, it would roll the salaries back, as I understand it, to the '86-87 level. And that would have an effect of reducing beginning teachers' salaries from I believe around 22 to 17,000. And it would have the same impact all the way up the line to teachers.

Q Could the district pay for the salaries to make up that difference out of operating funds?

A No, that would be next to impossible.

Q Why do you say that?

A What I found when I came to the district is that we had been using reserves, one time money only to balance the budget. And we came into this year and we had no more reserves and we had no more one time dollars. So we made the hard decision the

operating budget had to be balanced in this district. To do that we had to reduce ten million dollars in that operating budget to balance it for next year. And that has had a major impact on the district. And there just simply are no dollars available after that ten million dollar reduction.

Q What is the district's operating levy?

[84]

A The operating levy, I believe is $2.05, I believe.

Q Has it been frozen at that level for a number of years?

A Yes, it has.

Q Dr. Marks, I am handing you what has been marked as KCMSD Exhibit 42. Do you recognize this?

A Yes, I do.

Q What is this?

A. This is the school district, their current tax levy in our area.

Q How does the KCMSD levy compare now with the other school districts in the area?

A Well, we are at 2.05 on this. And I believe that is the lowest levy that is shown on this page.

* * *

APPENDIX BB

Excerpts from Transcript of Direct Examination of John Alspaugh (February 22, 1993)

* * *

[2311]

* * *

Q And what is your occupation?

A I'm a professor in the College of Education at the University of Missouri-Columbia.

Q And how long have you held that occupation, Dr. Alspaugh?

A Twenty-eight years.

Q Do you have a specialty?

A My specialty is educational statistics and educational research methods.

Q Have you every evaluated student achievement data from a public school district?

A Yes, I have.

* * *

[2312]

* * *

Q How many years have you been conducting this type of the student achievement evaluation?

A The 28 years since I have been a faculty member I've done this type of research.

Q And during that time have you ever published any articles or treatises and scholarly journals?

A Yes, I have.

* * *

[2315]

* * *

Q Why did you switch the focus from your initial exploration of elementary, middle and high schools to only elementary schools?

A Well, first of all, the - there is a relatively small number of middle schools and high schools, and all of the middle schools and high schools have been converted to Magnet schools, so I could not make Magnet versus non-Magnet schools comparisons. So I did - so I dropped - or did very limited analysis on middle and high schools.

Q When you did the analysis that you speak of today, did you reach any conclusions as a result of the research you did?

A Well, it appears to me that there has been a decline in student achievement at the middle school and high school level.

[2316]

Q And do you have those conclusions drawn out in any particular fashion?

A Yes.

Q What are they?

A The overall conclusions from this analysis, basically I have three conclusions, the first one, there is no consistent difference between Magnet and non-Magnet elementary schools in terms of reading and math achievement.

The second conclusion has two parts. In the first part, there is a difference between the socioeconomic backgrounds of students assigned to Magnet versus non-Magnet schools.

Part B of the second conclusion: If you statistically remove the influence that socioeconomic factors contribute to KCMSD student achievement, then students assigned to non-Magnet schools tend to have higher achievement than students in non-Magnet schools.

And third, the implementation of Magnet schools to increase the relative percentage of white students in the elementary schools is associated with lower black student achievement and lower overall student achievement.

* * *

[2321]

* * *

MR. EDELMAN: Your Honor, at this time the State would like to proffer Dr. John Alspaugh as an expert in statistical analysis.

THE COURT: Well, he will be accepted as such.

MR. EDELMAN: Thank you, Your Honor.

[2330]

* * *

Q Does that mean that the children from families with less money tend to show lower reading and math achievement in the KCMSD elementary schools?

A Yes.

* * *

[2339]

* * *

Q Do you consider the differences in characteristics between the students at Magnet schools and the students at non-Magnet schools to be important to this analysis?

A Yes, I do.

Q Why?

A Student achievement is highly influenced by the socioeconomic characteristics of the students, and that will have an impact upon the levels of achievement that I can anticipate.

* * *

[2360]

* * *

Q Dr. Alspaugh, would you please describe the general conclusions you draw from Exhibit No. 70?

A Exhibit No. 70 is concerned with black student achievement. And generally it implies that black student achievement has been declining.

Q Is that a districtwide measure?

A This is districtwide.

* * *

[2366]

* * *

Q Okay. Could you please explain any trend that you find in those data?

A Now, these are MMAT scores from '87 to '92. Consider the first example in the top left-hand corner.

Under reading/language arts in '87, the District was 42 points below state average.

In 1992, they were also 42 points below state average.

So basically for that one there was no change.

Q Okay.

[2367]

A If I proceed on through this, there are 16 comparisons like that that you can make.

Q Yes.

A And if you look at the 16 comparisons, there are 13 comparisons where there is a decline and one comparison I showed you where there is no change and two comparisons where there was a gain. So collectively you would say in terms of their relationship to the State, the District has declining MMAT scores for all subjects, all grade levels.

Q And that's overall with all students?

A These are all students tested by the MMAT in the grades 3, 6, 8 and 10.

Q Well, Dr. Alspaugh, you've reviewed quite a lot of data. Would you please summarize again what you consider to be the important conclusions that you've resulted - that has resulted from your work?

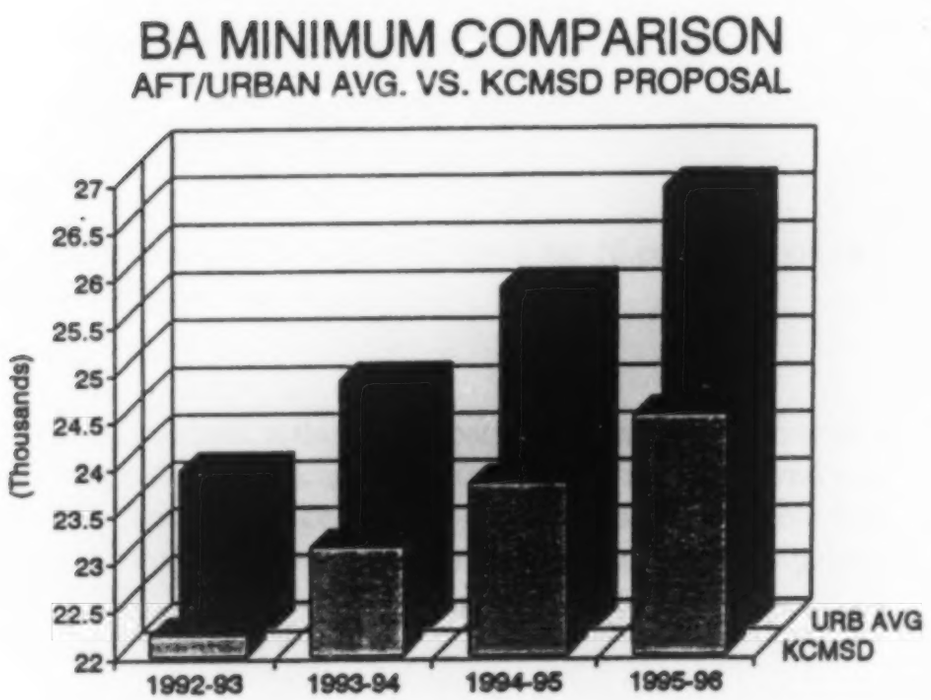
A In summary, my primary conclusion is, the implementation of Magnet schools to increase the relative percentage of white students in the elementary schools is associated with lower black student achievement and lower overall student achievement.

* * *

APPENDIX CC

AFT Exhibits 22a, b, d, e (June 1, 1993)

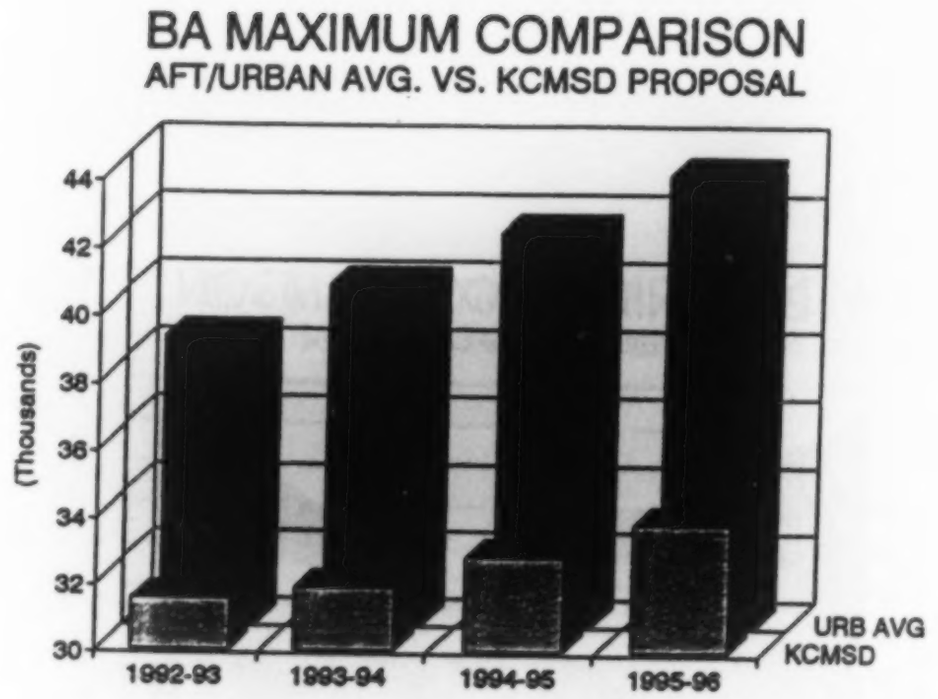
Exhibit 22a



	AFT URB AVG	KCMSD	DOLLAR DIFFERENCE	PERCENT DIFFERENCE
1992-93	23,670	22,215	1,455	6.55%
1993-94	24,617	23,130	1,487	6.43%
1994-95	25,601	23,824	1,777	7.46%
1995-96	26,626	24,539	2,087	8.50%

SOURCE: 1992-93 DOD salary schedule, AFT projections for DOD salaries for 1993-94 through 1995-96, KCMSD salary schedule for 1992-93, and KCMSD salary proposal for 1993-94 through 1995-96.

Exhibit 22b



	AFT URB AVG	KCMSD	DOLLAR DIFFERENCE	PERCENT DIFFERENCE
1992-93	38,490	31,545	6,945	22.02%
1993-94	40,030	31,875	8,155	25.58%
1994-95	41,631	32,831	8,800	26.80%
1995-96	43,296	33,816	9,480	28.03%

SOURCE: 1992-93 DOD salary schedule, AFT projections for DOD salaries for 1993-94 through 1995-96, KCMSD salary schedule for 1992-93, and KCMSD salary proposal for 1993-94 through 1995-96.

Exhibit 22d

BA MINIMUM COMPARISON
1993 PROPOSALS OF ALL PARTIES

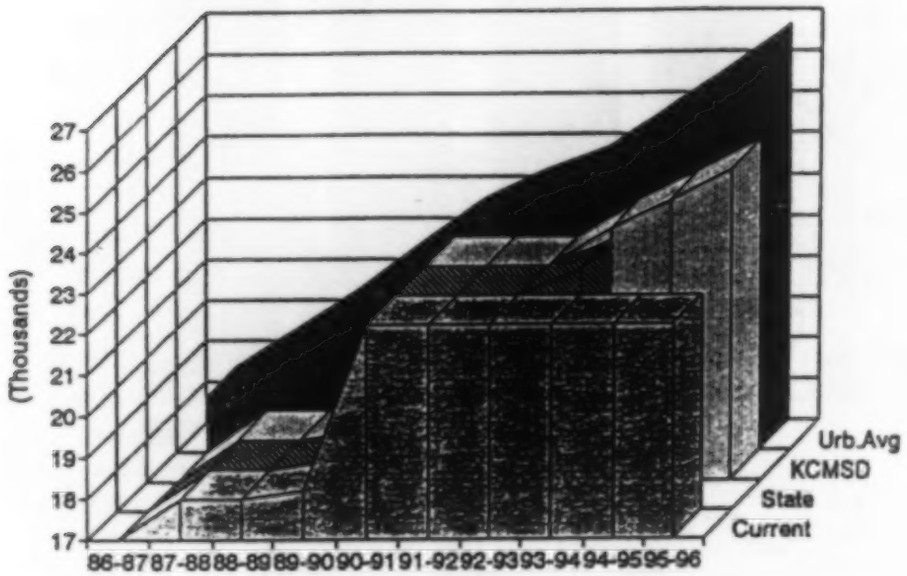
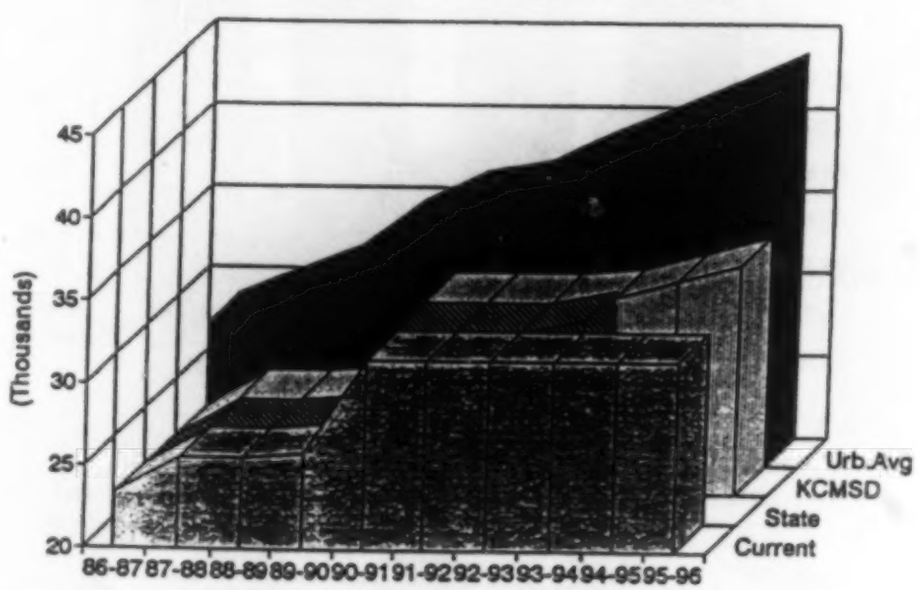


Exhibit 22e

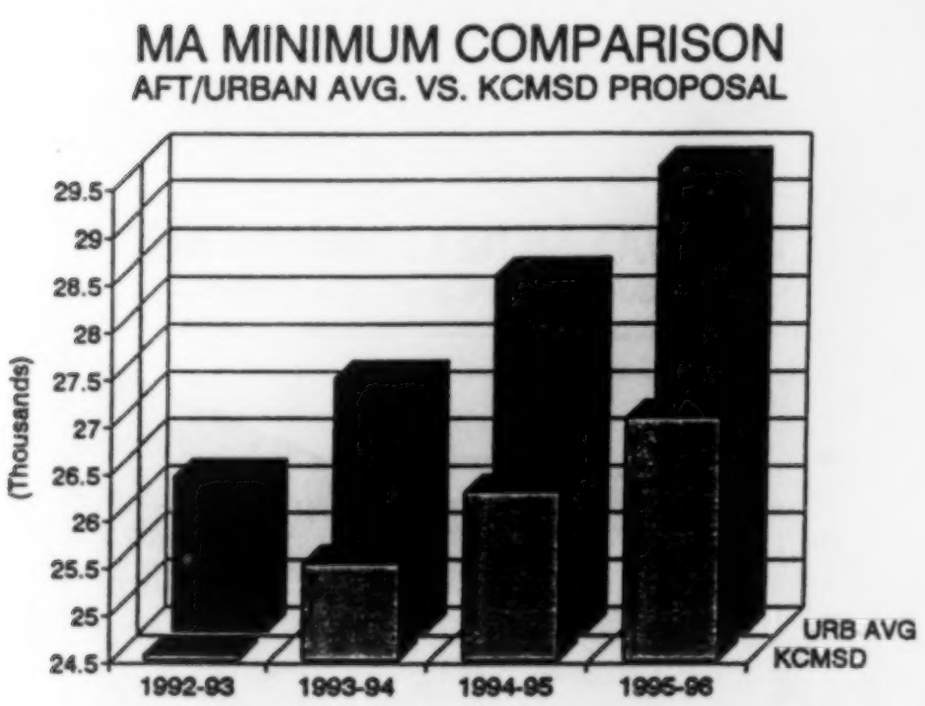
BA MAXIMUM COMPARISON
1993 PROPOSALS OF ALL PARTIES



APPENDIX DD

AFT Exhibits 23a, b, d, e (June 1, 1993)

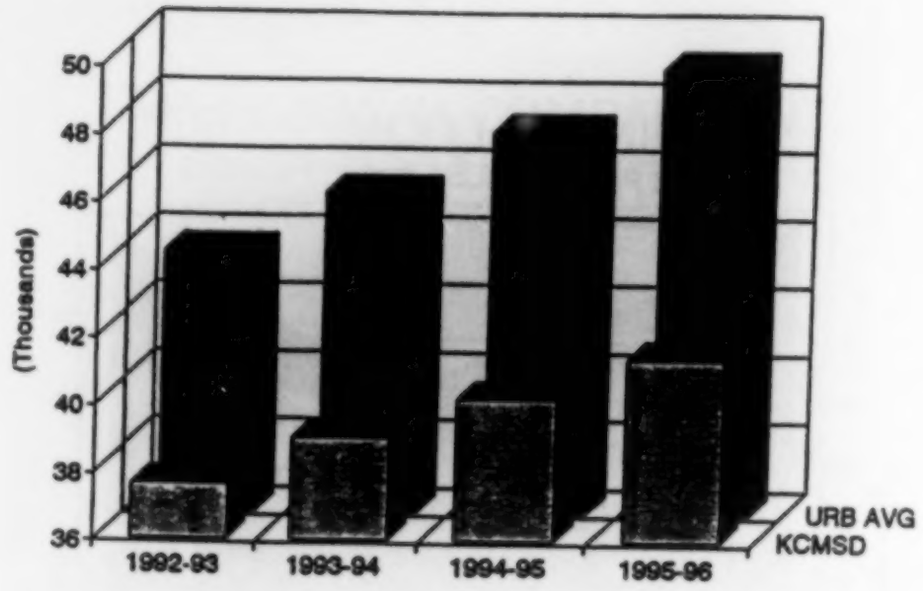
Exhibit 23a



	AFT URB AVG	KCMSD	DOLLAR DIFFERENCE	PERCENT DIFFERENCE
1992-93	26,145	24,548	1,597	6.51%
1993-94	27,191	25,515	1,676	6.57%
1994-95	28,278	26,280	1,998	7.60%
1995-96	29,410	27,069	2,341	8.65%

SOURCE: 1992-93 DOD salary schedule, AFT projections for DOD salaries for 1993-94 through 1995-96, KCMSD salary schedule for 1992-93, and KCMSD salary proposal for 1993-94 through 1995-96.

Exhibit 23b



	AFT URB AVG	KCMSD	DOLLAR DIFFERENCE	PERCENT DIFFERENCE
1992-93	43,670	37,654	6,016	15.98%
1993-94	45,417	39,025	6,392	16.38%
1994-95	47,233	40,196	7,037	17.51%
1995-96	49,123	41,402	7,721	18.65%

SOURCE: 1992-93 DOD salary schedule, AFT projections for DOD salaries for 1993-94 through 1995-96, KCMSD salary schedule for 1992-93, and KCMSD salary proposal for 1993-94 through 1995-96.

Exhibit 23d

MA MINIMUM COMPARISON
1993 PROPOSALS OF ALL PARTIES

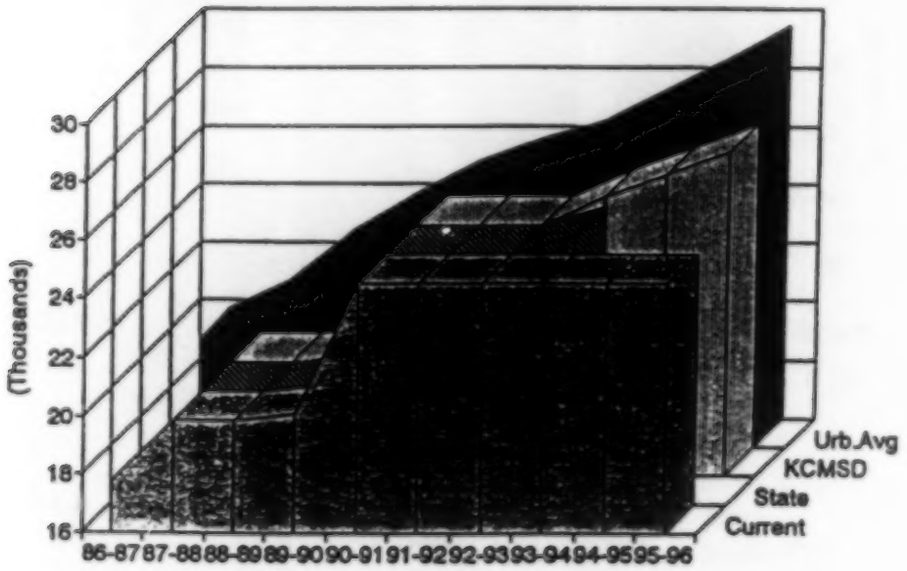
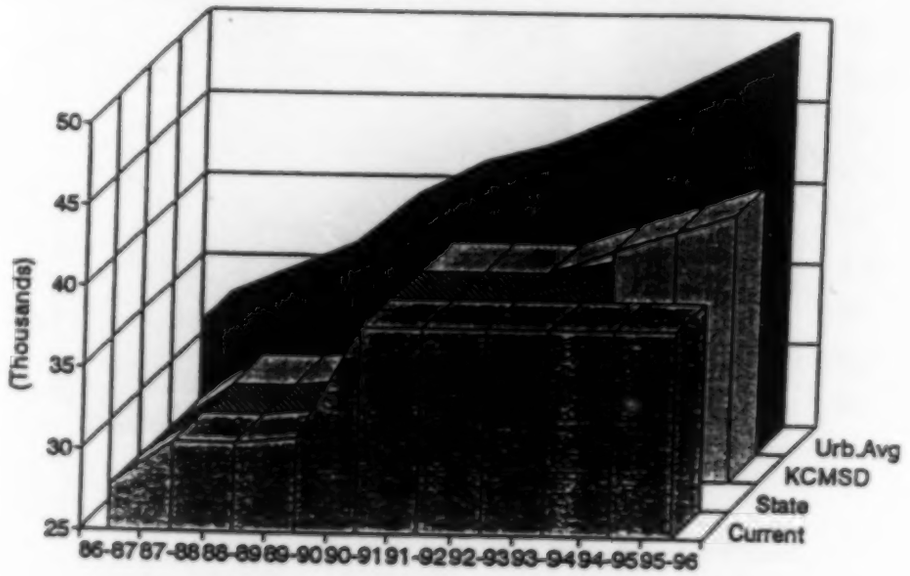


Exhibit 23e

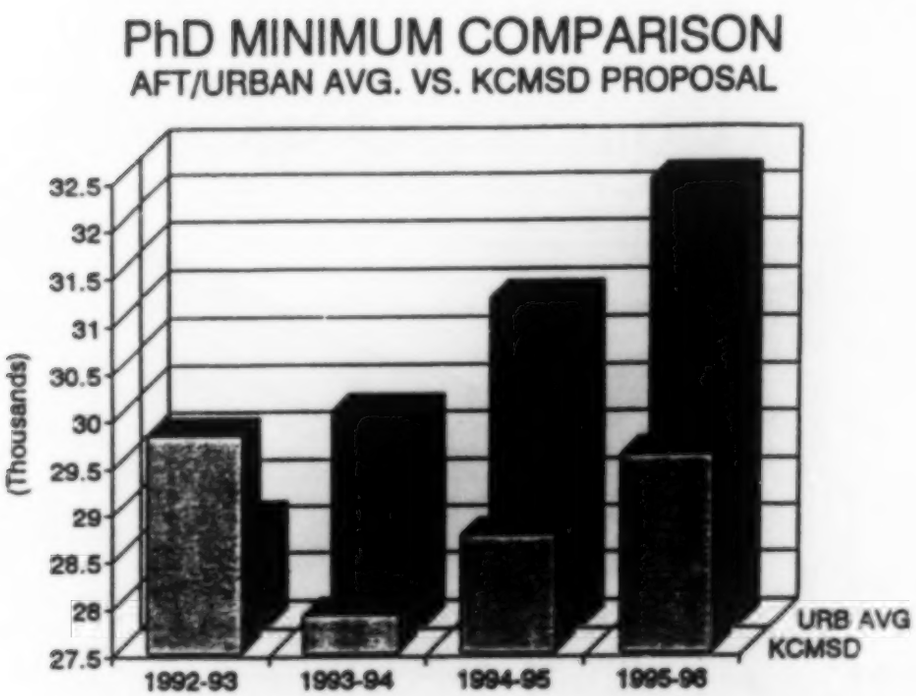
MA MAXIMUM COMPARISON
1993 PROPOSALS OF ALL PARTIES



APPENDIX EE

AFT Exhibits 24a, b, c, e (June 1, 1993)

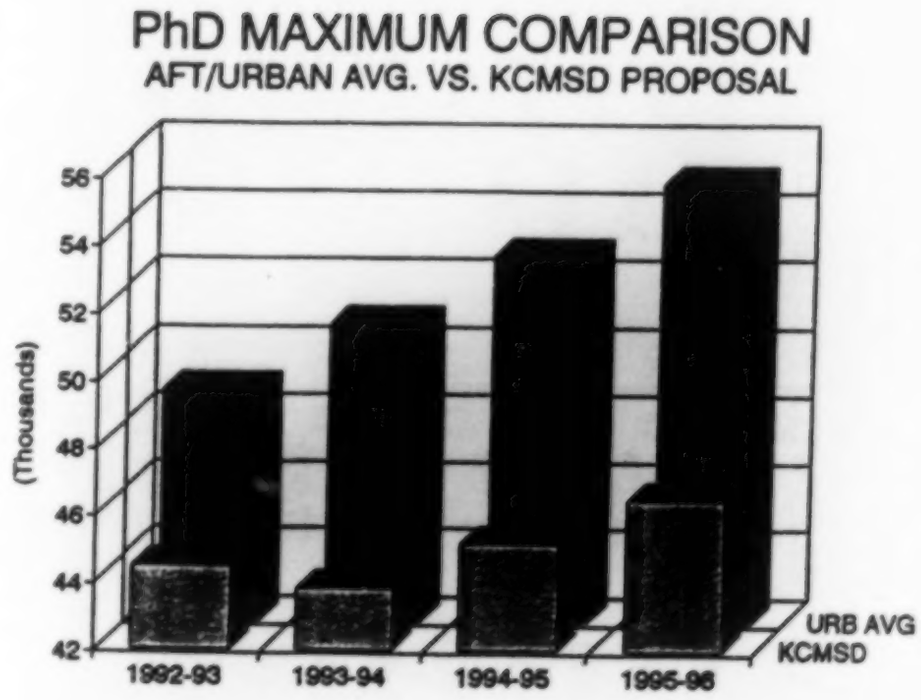
Exhibit 24a



	AFT URB AVG	KCMSD	DOLLAR DIFFERENCE	PERCENT DIFFERENCE
1992-93	28,620	29,813	(1,193)	-4.00%
1993-94	29,765	27,900	1,865	6.68%
1994-95	30,955	28,737	2,218	7.72%
1995-96	32,194	29,599	2,595	8.77%

SOURCE: 1992-93 DOD salary schedule, AFT projections for DOD salaries for 1993-94 through 1995-96, KCMSD salary schedule for 1992-93, and KCMSD salary proposal for 1993-94 through 1995-96.

Exhibit 24b



	AFT URB AVG	KCMSD	DOLLAR DIFFERENCE	PERCENT DIFFERENCE
1992-93	48,850	44,430	4,420	9.95%
1993-94	50,804	43,790	7,014	16.02%
1994-95	52,836	45,104	7,732	17.14%
1995-96	54,950	46,457	8,493	18.28%

SOURCE: 1992-93 DOD salary schedule, AFT projections for DOD salaries for 1993-94 through 1995-96, KCMSD salary schedule for 1992-93, and KCMSD salary proposal for 1993-94 through 1995-96.

COMPARISON OF KCMSD TEACHERS' SALARIES
WITH AVERAGE URBAN TEACHERS' SALARIES
IF KCMSD'S PROPOSAL IS ADOPTED BY THE COURT

MINIMUM SALARIES FOR TEACHERS WITH Ph.D DEGREES

Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	18,828	22,235	3,407	18.1%
1987-88	24,156	23,470	(686)	-2.8%
1988-89	24,156	24,500	344	1.4%
1989-90	24,424	25,745	1,321	5.4%
1990-91	29,813	27,055	250	-9.3%
1991-92	29,813	27,900	(1,913)	-6.4%
1992-93	29,813	28,620	(1,193)	-4.0%
1993-94	27,900	29,765 (Proj.)	1,865	6.7%
1994-95	28,737	30,955 (Proj.)	2,218	7.7%
1995-96	29,599	32,194 (Proj.)	2,595	8.8%

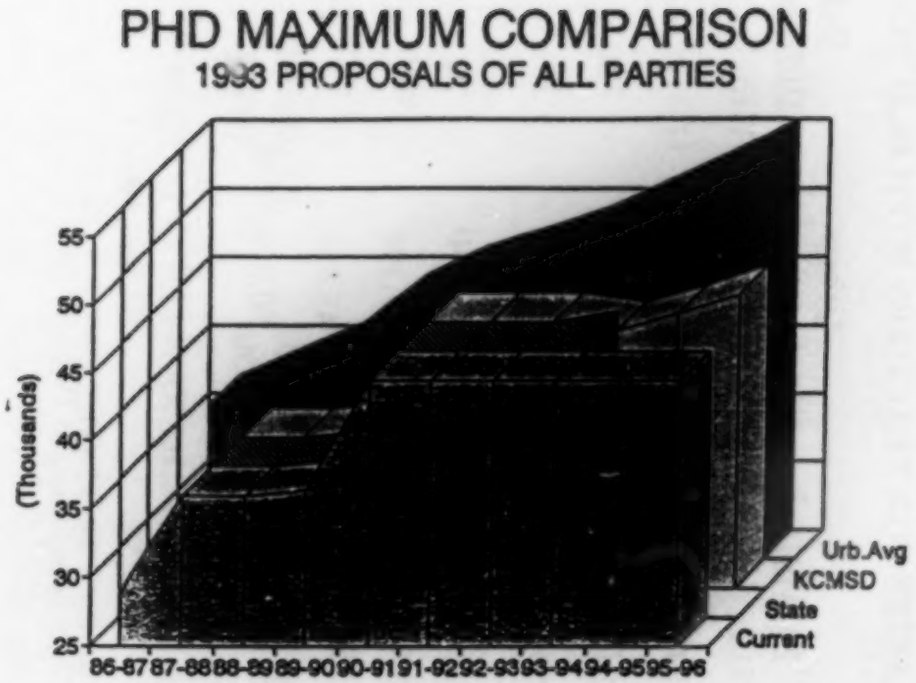
Exhibit 24c

MAXIMUM SALARIES FOR TEACHERS WITH Ph.D. DEGREES

Year	KCMSD	Urban Average	Dollar Difference	Percentage Difference
1986-87	28,833	36,315	7,482	25.9%
1987-88	36,000	38,270	2,270	6.3%
1988-89	36,000	40,180	4,180	11.6%
1989-90	36,400	43,595	7,195	19.8%
1990-91	44,430	45,840	1,410	3.2%
1991-92	44,430	47,195	2,765	6.2%
1992-93	44,430	48,850	4,420	9.9%
1993-94	43,790	50,804 (Proj.)	7,014	16.0%
1994-95	45,104	52,836 (Proj.)	7,732	17.1%
1995-96	46,457	54,950 (Proj.)	8,493	18.3%

Note: Based on KCMSD salary schedules for 1986-87 through 1992-93, KCMSD teachers' salary proposal for 1993-94 through 1995-96, DOD salary schedules for 1986-87 through 1992-93 and AFT projections for DOD teachers' salaries for 1993-94 through 1995-96.

Exhibit 24e



APPENDIX FF

Excerpts from Testimony of Mr. Jewell Gould
(June 1, 1993)

* * *

[220]

* * *

Q I guess based on that, you would agree, wouldn't you, that all other things being equal, a teacher is more closely connected to a child's education than is a grounds keeper at the child's school, wouldn't you?

A Mr. Edelman, I don't want to get in the business here of judging between the teacher and a grounds keeper. The teacher serves a very specific role and is very important to education. And for a district that hasn't given teachers pay increase, the State hasn't supported pay increase for teachers in the last three years, I don't know whether you have the right to even talk about the difference between a grounds keeper and a teacher.

But since you've asked me, I think the grounds keeper is very important because we must go out there and make sure that the people who come to these schools can see the school is well maintained and is well kept and it is safe and it is an important environment for children to learn. With the violence that goes on in schools today, with the problems that go on, every single employee of that school district is important in the scheme of things to make sure that parents choose to put their children in **[221]** public education.

Q I think I understand the depth of your feeling on this issue, but I guess I'm not sure if I heard you state in an area where tough choices have to be made which position as between a teacher and a grounds keeper you feel is more closely related to the child's education?

Do you have a priority on that issue?

A I want teachers to have the ability to address the needs of children. I want teachers not to have the child confused or frightened or concerned because of some element in the school environment.

* * *

[252]

* * *

Q You wouldn't support a desegregation funded pay increase if it were targeted only at teachers and instructional personnel, would you?

A I think it would miss a very important component of the education order of the Court. We have here an order that addresses the physical facilities, the programmatic offerings for their children and the staff. And I think all three share an importance, and I don't know how you separate them out.

* * *

APPENDIX GG

Testimony of Daniel Cutbirth (June 1, 1993)

* * *

[59]

* * *

MR. WOOD: At this time, the AFT would like to call to the stand Dan Cutbirth.

DANIEL CUTBIRTH, being first duly sworn, testified as follows:

DIRECT EXAMINATION

BY MR. WOOD:

Q Good morning, Mr. Cutbirth.

A Good morning.

Q Could you state and spell your name for the record?

[60]

A My name is Daniel Cutbirth. The last name is spelled C-u-t-b-i-r-t-h.

Q Where are you currently employed, Mr. Cutbirth?

A Kansas City, Missouri School District.

Q And in what position?

A I am the lead distribution supply specialist.

Q What are your duties in that position?

A I supervise the distribution of inter-department mail, I supervise the sorting and distribution of U.S. mail. I supervise the

distribution of District payroll. I order supplies for the print shop.

Q How long have you held that position?

A Approximately three years.

Q When did you begin working for the Kansas City, Missouri School District?

A 1978.

Q What other positions have you held while employed with the District?

A Warehouseperson and warehouse foreman.

Q Do you currently hold other jobs?

A I work for the Service Employees International Union, Local 12.

Q And what is the Service Employees **[61]** International Union Local 12?

A That's the union that represents certain employees in the Kansas City, Missouri School District.

Q How long have you been president of that union?

A Since 1985.

Q Were you an officer before you were president?

A I was vice-president before that.

Q For how long?

A Approximately six years.

Q How long have you been a member of the SEIU, Local 12?

A Since 1978.

Q Can you describe briefly some of the duties and responsibilities you have as president of SEIU, Local 12?

A I chair all membership meetings, all meetings of the executive board, all trials. I'm the chief negotiator for the union. I monitor wages and working conditions.

Q When you say you are chief negotiator, what do you negotiate with the District about?

A Wages and working conditions.

Q Do you have occasion as president of Local 12 **[62]** to monitor local membership levels?

A Yes.

Q And bargaining unit member levels?

A Yes.

Q What employee groups are represented by Local 12?

A The Operations Department, Maintenance Department, mail room, the warehouse and food service.

Q Can you briefly describe for us what goes on in the Operating Department?

A The Operating Department is responsible for the cleaning of the schools, the custodial staff.

Q How many people are in that department currently?

A Approximately 350 to 400.

Q Okay. How about the duties of the employees in the Maintenance Department?

A Those are primarily craftsmen, carpenters, painters, such like that.

Q How many employees currently are in that department?

A Approximately 140.

Q Can you describe the duties of the employees in the warehouse department?

[63]

A Those are the employees that receive stock and distribute goods to District buyers.

Q How many employees are currently in that department?

A I believe there's about 20.

Q The duties of the employees in the mail room department?

A Those employees sort and distribute mail.

Q How many employees are there?

A Five.

Q And the duties of the personnel in the Food Service Department?

A Those are the cooks and bakers, the people who cook and serve the food for the District.

Q And how many people are there in that department?

A I believe there's approximately 350.

Q Have the employee groups you've just described ever received any wage increases from desegregation funds?

A Yes.

Q Do you know when that was?

A It was 1990.

Q Are you familiar with the AFT's motion for desegregation funding for employees represented by **[64]** SEIU, Local 12?

A Yes.

Q Were you involved in preparing that proposal?

A I was.

Q How were you in involved in preparing that proposal?

A Well, I commissioned it. I asked that John Wallstaff to do the wage and salary surveys for me.

Q What did you do with that information?

A I reviewed it and compared it to the data I had.

Q From what sources did you gather the data?

A It was the Department of Labor Area Wage Survey, the Building and Trades Association union scale, the Educational Research Service. We also did a survey of local school districts ourselves. We compared that to our '92-93 handbook wages.

Q Why did you use a number of different sources rather than just one?

A Well, the variety of people that we represent is so great that there really is not one source that I'm aware of that would encompass them all.

Q I'm going to hand you what's been marked as AFT Exhibit 3.

MR. WOOD: May I approach the witness, Your Honor?

[65]

THE COURT: Yes, you may.

Q (By Mr. Wood) Can you identify this document, Mr. Cutbirth?

A Yes.

Q What is it?

A This is the Area Wage Survey that the U.S. Department of Labor does.

Q Excuse me. What was that last part?

A This is the Area Wage Survey that the U.S. Department of Labor commissions.

Q Is this one of the sources of information that you indicated that you relied upon in making your wage comparison?

A Yes.

Q Why did you rely on this particular source of information?

A This information detailed some of the job descriptions I represent, mostly craftsmen.

Q Have you relied on it in the past as a source of wage information for negotiations?

A I have. I use this.

MR. WOOD: Your Honor, I would like to move the admission of AFT Exhibit 3.

MR. MATANIC: No objection, Your Honor.

MR. SNYDER: No objection.

[66]

THE COURT: Exhibit 3 will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 3 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) Mr. Cutbirth, I'm going to hand you now what has been marked as AFT Exhibit No. 4. Can you identify that document?

A Yes.

Q What is it?

A This is the wage scales for the Building and Trades Association here in Kansas City.

Q Is this another source of wage information you relied on?

A Yes, it is.

Q Why did you rely on this particular source of information?

A This wage scale has most of our craftsmen positions in here, compared to other craftsmen in Kansas City.

Q Have you relied on it in the past as a source of information for negotiations?

A Yes, I have.

Q Do you know if this report is the type generally relied upon by persons in the occupation of negotiating wages for employees in the building trades?

[67]

A I believe it is.

MR. WOOD: I would like to move the admission of AFT Exhibit 4.

MR. SNYDER: No objection.

MR. MATANIC: No objection.

THE COURT: Exhibit 4 will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 4 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) Mr. Cutbirth, I'm going to hand you now what's been marked as AFT Exhibit 5. Can you identify this document?

A Yes.

This is the Educational Research Service report on wages and salaries.

Q And what is the Educational Research Service?

A It is a nonprofit independent company that studies wages and salaries of school district staff.

Q Is this another source of information that you indicated that you relied upon in helping to prepare the proposal?

A Yes.

MR. WOOD: I would like to move the admission of AFT Exhibit 5, Your Honor.

MR. SNYDER: No objection, Your Honor.

[68]

MR. MATANIC: No objection.

THE COURT: Exhibit 5 will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 5 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) I'm going to hand you now what's been marked as AFT Exhibit 6. Can you identify this document?

A Yes.

Q What is this?

A This is a portion of the '92-93 Employee Handbook.

Q And what portion is it?

A The salary scales.

Q Is this an accurate copy of those portions of the handbook that contain wage information?

A Yes.

Q Do you participate in developing the wages and working conditions contained in this exhibit?

A Yes, I do.

Q Do the wages that you see listed on this exhibit include the 1990 wage increase from desegregation funds?

A Yes.

Q Did you rely on this exhibit when making your wage comparisons?

[69]

A Yes, this is what I compared them to.

MR. WOOD: Your Honor, I would like to move the admission of AFT Exhibit 6.

MR. SNYDER: No objection, Your Honor.

MR. MATANIC: No objection.

THE COURT: Exhibit 6 will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 6 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) I'm going to hand you now what's been marked as AFT Exhibit 7. Can you identify this document, Mr. Cutbirth?

A Yes.

Q What is this?

A This is a summary of the AFT proposal for the employees Local 12 represents for wage increases.

Q Was this document prepared at your direction?

A Yes.

Q Is is an accurate summary of the AFT proposal for Local 12 personnel?

A Yes.

MR. WOOD: I move the admission of AFT Exhibit 7, Your Honor.

MR. MATANIC: No objection, Your Honor.

MR. SNYDER: No objection.

THE COURT: All right. Exhibit 7 will be [70] admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 7 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) Why did you approach the AFT about the possibility of this salary proposal for Local 12 members?

A In the absence of a pay increase for the last three years has greatly affected morale among the employees that I represent; has caused an increase in attrition.

Q In your capacity as president of Local 12, do you have any knowledge about the numbers of people in each department that have been leaving the employment with the Kansas City District offer the last three years?

A I have seen some documentation from the District about attrition rates.

Q What knowledge has that given you?

A That attrition before the Court order was quite high in most of the departments, greatly reduced immediately thereafter and is beginning to increase again.

Q I'm going to hand you now what's marked as AFT Exhibit 9. Can you identify this document, Mr. Cutbirth?

[71]

A Yes. This is the proposed hourly salary schedule for operating employees.

Q How does the proposed hourly salary schedule compare with the existing salary schedule for operating employees?

A There was a 4 percent increase.

Q How did you assist in formulating this particular portion of the proposal?

A Well, I used the aforementioned studies, we used and compared them to what we are being paid currently.

Q And what did you find?

A That pursuant to the Court order of 1990 salaries for the Operating Department were brought fairly close to local standards, but absent a pay increase the last two or three years, we're beginning to slip again.

Q Do you know why a 4 percent increase is being proposed?

A I believe the ERS study mentioned that between '91 and '92 here locally, the average custodial hourly increase was 3.3 percent.

Q Is that AFT Exhibit 5 you're referring to?

A Yes.

Q Can you point to a particular page that gives [72] the information you just gave us?

A Yes. On page Roman numeral 4 under Highlights.

Q And what does it say there?

A That the custodial average mean hourly rate rose 3.3 percent.

Q Do you know if the projected cost of living index was considered when making this proposal?

A It was.

Q By whom?

A I believe Jewell Gould did that.

Q Did Mr. Gould also review the proposal with regard to operating employees?

MR. MATANIC: I'm going to object, Your Honor. I think Mr. Gould ought to be telling us what he reviewed.

THE COURT: The objection will be sustained.

Q (By Mr. Wood) I'm going to hand you now, Mr. Cutbirth, what's been marked as AFT Exhibit 11. This is a three-page document; is that correct?

A Yes.

Q Can you identify the first page of that document?

Mr. WOOD: I'm told I didn't offer [73] Exhibit 9 into evidence. I'd like to do so at this time.

MR. SNYDER: Your Honor, we don't have any objection. I just note for the record that there wasn't an 8.

MR. WOOD: We did skip 8 and 10, Your Honor.

THE COURT: Exhibit 9 will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 9 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) Can you identify the first page of Exhibit 11, Mr. Cutbirth?

A Yes. This is a listing of job descriptions for the Maintenance Department.

Q What does it show?

A It shows the wages in '89-90, the current wages and dollar and percent difference.

Q Was this document prepared at your direction?

A It was.

Q What is the second page of this document which is labeled Maintenance Employees Market Wage Comparison?

A This is also the Maintenance Department classifications, listing current wage against market wage and percent difference.

[74]

Q What are the numbers in the column labeled Market Wage?

A Well, two studies were used to determine these market wages. The first was the DOL Area Wage Survey and the other was the Building Trades Union Scale. Where it says AWS, that's the DOL study.

Q AWS is Area Wage Survey?

A Yes.

And when you see Union Scale is 85 percent, that's union scale of the Building Trades Association.

Q Why did you use 85 percent of what was listed as union scale?

A Well, a couple of reasons. The first is that we understand that our benefit package here at the District is different than some of the other unions on the outside. Also, that we were told once a year. Another reason is that many, many years ago, contractually, Maintenance Department salaries were linked by percentage to the union scale on the outside.

Q Can you identify Page 3 of Exhibit 11 which is labeled Maintenance Employees Proposed Hourly Salary Increase?

A Yes.

[75]

Q What is that?

A That is, again, Maintenance Department classification reflecting current wage and the 10 percent increase.

Q Did you make the determination that a 10 percent increase should be proposed?

A I did.

Q Do you know who did?

A I did in conjunction with Jewell Gould.

Q How was that decision made?

A We felt that even though this does not get us anywhere near the two studies, it is a conservative step in the right direction that puts a lot of people fairly close.

Q Did you make a determination that there should be a uniform increase?

A I did.

Q Why did you do that?

A Primarily to not negatively affect morale.

Q I'm going to hand you now what's been marked as AFT Exhibit 12. I think we're back in order again.

MR. WOOD: I've done it again. I failed to offer Exhibit 11. I would like to apologize and do that at this time, Your Honor.

[76]

MR. MATANIC: No objection.

THE COURT: Exhibit 9 will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 9 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) Can you identify Exhibit 12, Mr. Cutbirth?

A Yes. This is the proposed hourly salary schedule for warehouse employees.

Q And was this exhibit created at your direction?

A Yes.

Q How were the wages listed on Exhibit 12 determined?

A They were compared to the Department of Labor Area Wage Survey and the Building Trades Union scale.

Q Is the warehouseperson classification, is that the same as in the Maintenance Department?

A Yes.

Q I notice there was a warehouseperson in the Maintenance Department as well.

A That's correct.

Q How about for truck driver?

A They are the same.

Q I notice that the wage listed for stock person [77] is the same as that for warehouseperson. Has that always been the case?

A No, it has not.

Q What has been the case in the past?

A The wage of stock person, warehouseperson have always been almost $2 an hour different, although the job descriptions are identical.

Q Is that why you're proposing that they be the same?

A That's correct.

Q I'm going to hand you what's been marked as AFT Exhibit 13.

MR. WOOD: First, I would like to offer Exhibit 12 into evidence, Your Honor.

MR. SNYDER: No objection.

THE COURT: Exhibit 12 will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 12 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) Can you identify what is marked as Exhibit 13? It's two pages.

A Yes. This is the job description for a warehouseperson.

Q What is the second page?

A It's the job description for a stock person.

Q And how do these two compare?

[78]

A They are the same.

Q Are these — the job duties listed, are they accurate examples of what these people do on a daily basis?

A Yes.

Q I notice these are dated in the summer of 1991.

Do you know if these job descriptions have changed any since that time?

A I don't know that.

Q You don't know if they have changed or they —

A I don't know if they've changed.

MR. WOOD: Your Honor , I would like to move the admission of AFT Exhibit 13.

THE COURT: Exhibit 13 will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 13 WAS RECEIVED IN EVIDENCE.)

THE COURT: I think now is probably a pretty good time to take a midmorning break. We will take about a 15-minute recess.

(WITNESS TEMPORARILY EXCUSED.)

(A RECESS WAS TAKEN.)

DANIEL CUTBIRTH resumed the stand and testified further:

CONTINUED DIRECT EXAMINATION

[79]

BY MR. WOOD:

Q I'll remind you, you are still under oath Mr. Cutbirth, as we proceed.

I had one more question about Exhibit 13, the last exhibit I believe I handed you. You don't have any reason to believe that these job descriptions have changed since 1991, do you?

A I don't. Contractually, the District has to give any updated job descriptions to the union, and as I said earlier, these are the latest ones I have.

Q Thanks. I'm going to hand you know what's been marked as AFT Exhibit 14. Can you identify this exhibit?

A Yes. This is the proposed hourly salary schedule for the mail room employees.

Q Did you create this exhibit, Mr. Cutbirth?

A Yes.

MR. WOOD: I would like to offer Exhibit 14 into evidence.

MR. EDELMAN: Your Honor, I hate to be technical, but no reason has been given as to this exhibit's relevance yet.

MR. WOOD: I will be happy to do that and move to offer it later.

[80]

Q (By Mr. Wood) What does this exhibit show, Mr. Cutbirth?

A It shows what the salary in the mail room would be if the proposal was so ordered.

Q How do these wages listed on this exhibit differ from those that currently exist?

A There are equity increases.

Q What is the wage for lead distribution and supply specialist based upon?

A It tracks a similar position in the Maintenance Department.

Q And what is the wage listed for truck driver based on?

A It is based on the studies we took from the Area Wage Survey and is also a similar job description to that in the Warehouse Department.

MR. WOOD: I would like to offer once again Exhibit 14.

MR. EDELMAN: No objection.

MR. SNYDER: No objection, Your Honor.

THE COURT: Exhibit 14 will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 14 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) I'm going to hand you what's been marked as AFT Exhibit 15. Can you identify **[81]** this?

A Yes. This is the proposed salary schedule for the food service employees.

Q What is the first chart we see on this page?

A The first chart shows current salaries for food service staff.

Q How about the second chart?

A It shows the same classifications with a 6 percent increase.

Q What was your involvement in the formulation of this particular portion of the proposal?

A I reviewed the data we collected from local school districts and the ERS and compared them to current salary.

MR. WOOD: Your Honor, I would like to move the admission of Exhibit 15.

MR. EDELMAN: No objection.

MR. SNYDER: No objection.

THE COURT: 15 will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 15 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) There's a second page to that exhibit. What does that show?

A That is the proposed weekly salary schedule for elementary managers that we represent.

[82]

Q What was your involvement in the creation of this proposal?

A The same as on Page 1.

Q I'm going to hand you now — this is one of the exhibits that was out of order earlier — what's been marked as AFT Exhibit 10. Can you identify that document, Mr. Cutbirth?

A Yes. This is hourly wages from Kansas City area schools that we took out of the ERS study.

Q ERS study that was admitted as AFT Exhibit 5?

A Yes.

Q And what does this exhibit show?

A It shows the custodial and cafeteria salaries for school districts near here in Kansas and Missouri, and averages as well.

Q And for the cafeteria employees, how does that average compare to current Food Service Department employees?

A It is higher.

Q Was this average considered when making the proposal for food service employees?

A Yes it was.

MR. WOOD: I would like to move the admission of Exhibit 16, Your Honor.

MR. EDELMAN: No objection.

[83]

MR. SNYDER: No objection.

THE COURT: Did you say 16 or 10?

MR. WOOD: 10, I'm sorry.

THE COURT: It will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 10 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) There's one more exhibit, Mr. Cutbirth. I'm going to hand you what's been marked as AFT Exhibit 16 and this is a two page document. Can you identify this?

A Yes. This is the survey of local suburban school districts.

Q How was this survey conducted?

A I commissioned John Walsh to do that for me.

Q Did you examine the numbers that were collected?

A I did.

Q Are they presented accurately on these two pages?

A Yes.

Q What are you able to tell by the first page of this exhibit?

A Well, the local average of the school districts shown here are much higher than the KCMSD salary average.

[84]

Q What is the local average listed there?

A Seven sixty-five.

Q What is the KCMSD salary for a cook?

A Six twenty-nine.

Q What are you able to tell from the second page of this exhibit?

A That the local average for elementary cafeteria management is 10.21 and the KCMSD salary is 8.77.

Q Was this survey and Exhibit 10, were they the basis for food service employees' proposal that was presented in Exhibit 15?

A Yes.

MR. WOOD: Your Honor, I would like to move the admission of Exhibit 16.

MR. SNYDER: No objection.

MR. EDELMAN: No objection.

THE COURT: Exhibit 16 will be admitted.

(AMERICAN FEDERATION OF TEACHERS' EXHIBIT NO. 16 WAS RECEIVED IN EVIDENCE.)

Q (By Mr. Wood) I would like to refer you, Mr. Cutbirth, back to AFT Exhibit 7, if you can find it.

A I have it.

Q And I would like to direct your attention to [85] the column that says 1994-95 and 1995-96. What does that column show?

A Four percent annual increases, plus step increases.

Q Do you know why the 4 percent annual increases are being proposed for the '94-95 and '95-96 school years?

A Yes.

Q Why is that?

A Because, as I said earlier, the 3.3 figure in the ERS study also projected cost of living increases.

Q On each of the exhibits — I will refer you back to 15, for example. Do you have that in front of you?

A Yes.

Q There is — the third chart down on Page 1 of AFT exhibit 15 is entitled Longevity Schedule. Is that another component of the proposal?

A Yes, it is.

Q How do these rates listed under the Longevity Schedule compare to those that exist now?

A These are higher.

Q Do you know how much higher?

A Approximately four times.

[86]

Q Do you know why that is being proposed?

A We chose to track the longevity schedule proposed by the AFT in another salary proposal.

MR. WOOD: I don't have any further questions at this time.

MR. SNYDER: KCMSD has no questions, Your Honor.

MR. BENSON: Plaintiffs have no questions.

CROSS-EXAMINATION

BY MR. MATANIC:

Q Mr. Cutbirth, I'm Bart Matanic with the State of Missouri. I have some questions for you.

Mr. Cutbirth, you have not had any involvement in planning proposals for the Court's desegregation remedy, have you?

A Other than this proposal?

Q Other than this one.

A No.

Q Mr. Cutbirth, since the Court's April 16th, 1993 magnet order, have any of your supervisors or subordinates contacted you relating to any new duties that would be expected of you because of that order?

A The only think that I can think of is if we **[87]** have a new Montessori school, I would be expected to find a way to distribute to it.

Q When did you think of that, recently after your deposition?

A Yes.

Q Mr. Cutbirth, you can't point to any way in which your duties assist in implementing the voluntary inter-district transfer plan, can you?

MR. WOOD: I object, Your Honor. I think that calls for a legal conclusion.

THE COURT: Objection will be overruled.

A Would you repeat that, please?

Q (By Mr. Matanic) Mr. Cutbirth, you can't point to any way in which your duties assist in implementing the voluntary inter-district transfer plan, can you?

A No.

Q Mr. Cutbirth, there was interoffice mail distribution at the KCMSD prior to 1985, was there not?

A Yes.

Q That's currently one of your duties; is that correct?

A That's correct.

Q And I believe you said earlier that one of **[88]** your duties involves distributing payroll checks?

A That's true.

Q Isn't is true that payroll checks were distributed prior to 1985?

A Yes.

Q Mr. Cutbirth, you did not personally contact anyone at the Educational Research Service for information, did you?

A No.

Q You represent Local 12 in meet-and-confer sessions with the KCMSD, do you not?

A Yes.

Q The AFT's motion on behalf of Local 12 was filed prior to the conclusion of the meet-and-confer sessions with the KCMSD this year, was it not?

A That's correct.

Q And at least one as of May 13th, Local 12 was still negotiating with the KCMSD over wage increases, was it not?

A True.

Q Mr. Cutbirth, there are positions for which AFT seeks desegregation funding on behalf of Local 12 which do not require any kind of specialized training; isn't that correct?

[89]

A Yes.

Q One can apply to be a custodian right off the street, isn't that so?

A Custodian 1?

Q Yes.

A Yes.

Q And one can apply to be a parking lot attendant right off the street; isn't that correct?

A Yes.

Q And no license or course work is required to become a custodian helper; isn't that correct?

A That's correct.

Q You're not aware of any positions for which Local 12 provides representation in the KCMSD that require college degrees, are you?

A No.

Q No license or course work is required to be a warehouseperson; isn't that correct?

A That is correct.

Q And no license or course work is required to become a laborer, is there?

A No.

Q Isn't it correct, Mr. Cutbirth, that you can name only one person who has told you they would leave the KCMSD is salary increases weren't **[90]** granted?

A By name, yes.

Q Let's talk a little bit about recruitment of personnel for the positions Local 12 represents. Mr. Cutbirth, isn't it true that other than for one steam fitter position, you aren't aware of any other positions for which qualified people did not apply?

A That's true.

Q You're not aware of any difficulties the District has had in filling laborer positions, are you?

A No.

Q I would like to talk briefly about Attachment 7 to the Local 12 motion which I believe was an exhibit. It's the one on the custodian/cafeteria positions.

Do you have the exhibit number?

A It's No. 7.

Q My 7 is — I was talking about the comparison of the cafeteria and custodian positions, this document.

MR. WOOD: I think it might be Exhibit 10.

Q (By Mr. Matanic) Now, if I understood [91] correctly, Exhibit 10 represents salaries for comparable positions in other local area districts?

A That's true.

Q Isn't it true, Mr. Cutbirth, that some of those districts pay less to the positions represented, custodian and cafeteria?

A Yes.

Q What's the KCMSD range for custodians? Is it 7.68 to 8.51?

A I believe it is.

Q And for cafeteria, isn't it 5.90 to 6.26?

A I believe so.

Q So Atchison would be lower than — if the KCMSD custodian positions are at 7.68 to 8.51 range, Atchison would be lower than much of that range; is that correct?

A Partly, lower than part of it, yes.

Q You have no evidence that the Atchison district has had any difficulty filling its custodian positions, do you?

A I have no knowledge of that.

Q And for cafeteria positions, if KCMSD is 5.90 to 6.26, Atchison is below all of those; isn't that correct?

MR. SNYDER: Excuse me, your Honor, I [92] would like to register an objection.

This whole line of questioning — I've been a little bit patient here — but I think it appears to be questioning the premise of whether competitive salaries are important to the School

District in order to implement the plan or in order to proceed with this court's orders.

As the opening statements discussed, this court found that it's important for the District to have salaries that are competitive in the appropriate markets, and the State put on evidence on this exact same point last year, so did the School District.

We don't think it's appropriate to rehash all the same points, and I would respectfully object.

MR. MATANIC: Your Honor, if I may, besides looking at the past, this line of questioning also looks at 1992 to 1993, which is included.

THE COURT: I'm going to overrule the objection. But, if you're going on Exhibit 10, I don't follow the figures you've been throwing out.

MR. MATANIC: The reason for that may be [93] that the Kansas City, Missouri ranges are not on there as —

Q (By Mr. Matanic) Is that correct, Mr. Cutbirth?

A That's correct.

MR. MATANIC: Mr. Cutbirth indicated that for custodians in Kansas City, Missouri, the rate of pay is between $7.68 and 8.51; for cafeteria workers, KCMSD pays between 5.90 and 6.26.

THE COURT: What exhibit shows that?

Q (By Mr. Matanic) Does any exhibit show that, Mr. Cutbirth?

A Yes.

THE COURT: The No. 10 shows Kansas City custodian at 12.28.

MR. MATANIC: That's Kansas City, Kansas, Your Honor.

THE COURT: It doesn't say Kansas City, Kansas.

MR. MATANIC: Those are — that's the one under Kan sas.

THE COURT: Okay. All right.

THE WITNESS: Mr. Matanic, it would be Exhibit 6.

Q (By Mr. Matanic) is there a comparable figure **[94]** in Exhibit 6 to the $6.74 we see for Fort Osage in Exhibit 10?

A Okay. I have them both. Could you repeat that, please?

Q Is there a comparable figure in Exhibit 6 for the 6.74 we see for custodians at Fort Osage and Exhibit 10 or is the 6.74 an average?

A Okay. The 6.74 you're speaking of is the custodial wage at Fort Osage?

Q Correct.

A Okay. Well, the average custodial salary in Exhibit 6 is 7.068 to 8.51.

Q Is there one single number we can use to compare to the 6.74 we see in Exhibit 10 for Fort Osage?

A You mean the average of the KCMSD custodial salary?

Q If that's what these are in Exhibit 10, yes.

A I'm not sure that we have an average in here.

Q Okay.

MR. MATANIC: That's why I was talking about the ranges, Your Honor, we don't have an average.

Q (By Mr. Matanic) Mr. Cutbirth, Lawrence, Kansas, at 7.24 for custodians pay less than the **[95]** KCMSD pays custodians under any circumstances; isn't that correct?

A Yes.

Q You don't know whether the Lawrence district has had any difficulty in filling its custodian or cafeteria positions, do you?

A I have no knowledge of that.

Q In fact, isn't it true that the KCMSD has not had any difficulty in filling its custodian or cafeteria positions?

A On the cafeteria side, I believe there has been no problem. Custodial side is currently understaffed.

Q Are you saying that KCMSD has had difficulty filling the custodian positions?

A No, they haven't had difficulty filling them.

Q You believe the custodian rates for the KCMSD are competitive with the other hourly rates listed in Exhibit 10, do you not?

A Fairly close.

Q You've not looked at any statistics on attrition rates for positions represented by Local 12, have you?

A Yes.

Q You have?

[96]

A Yes.

Q When did you do that?

A Week and a half to two weeks ago.

Q After your deposition?

A That's correct. I believe my attorney sent that to you.

Q You hadn't done that analysis before the motion was filed?

A No.

Q Mr. Cutbirth, let's look at Exhibit 10 again. The Kansas City, Kansas School District pays custodians considerably more than the KCMSD does; isn't that correct?

A Yes.

Q You're looking at $12.28 compared to a range of $7.68 and $8.51, correct?

A Correct.

Q You're not aware of anyone that has ever left the position as a custodian with KCMSD to become a custodian with the Kansas City, Kansas School District, are you?

MR. SNYDER: Your Honor, I just want to renew my objection. If we take each school district anywhere in the area and ask whether that district has ever lost employees or whether our [97] district has lost employees to that district is simply rehashing the fundamental question of whether competitive salaries are the appropriate standard. The Court has ruled that competitive salaries or relevant and looking at every school district, we will be here all day and I don't think it will be of any assistance.

MR. MATANIC: Your Honor, if I may, we're not going to look at every school district, and I think Mr. Cutbirth testified on direct that there had been some attrition problems, and I would like to get to that issue.

THE COURT: Well, all right, get at that issue rather than taking it district by district.

MR. MATANIC: I have just a couple of examples.

Q (By Mr. Matanic) Did you answer the last question?

A I don't think I did.

Q You're not aware of anyone that has ever left the position as a custodian with the KCMSD to become a custodian with the Kansas City, Kansas School District, are you?

A Not by name, no.

Q And Kansas City, Kansas also pays [98] warehousepersons more than KCMSD does; isn't that correct?

A Yes.

Q And you're not aware of anyone who is a warehouseperson with the KCMSD who's ever left to become a custodian with the Kansas City, Kansas School District, are you?

A You mean warehouseperson?

Q Yes.

A No.

Q I'm sorry. You're not aware of whether any KCMSD custodians have even applied to be custodians with the Kansas City, Kansas School District are you?

MR. SNYDER: I'd just like to note my continuing objection, Your Honor.

THE COURT: I'm going to sustain it at this point. Let's move on.

Q (By Mr. Matanic) Mr. Cutbirth, you believe the 1990 Lee and Burgess study was flawed in its examination of the Maintenance Department, don't you?

A Yes.

Q You believe maintenance people are doing a good job currently, do you not?

[99]

A Yes.

Q You're not currently seeking other employment, are you, Mr. Cutbirth?

A No.

Q Do you have any knowledge currently of shortages in the metropolitan area of people qualified to fill the positions represented by Local 12.

A I have no knowledge.

Q For next year, Mr. Cutbirth, you aren't aware of whether any school districts in the Kansas City metropolitan area are going to be net hirers in any of the positions covered by Local 12?

A I don't know.

Q Isn't it true, Mr. Cutbirth, that you don't have any knowledge one way or another whether there will be shortages in the next five years in any of the positions represented by Local 12?

MR. WOOD: I'll object, Your Honor. That calls for speculation on the part of the witness.

THE COURT: He can answer the question. If he doesn't know, he can say he doesn't know.

A I don't know.

Q (By Mr. Matanic) You can't name any particular aspect of the desegregation plan that [100] KCMSD is currently failing to implement, can you?

A No. If more persons were hired for the operating warehouse, maintenance, mail room and food Service Departments, would that potential increase the membership of Local 12?

Q It could.

A I take it, then, that could potentially increase the amount Local 12 receives as union dues, could it not?

MR. WOOD: I'll object to the relevance of this question.

THE COURT: Objection will be overruled.

A Yes.

Q (By Mr. Matanic) Mr. Cutbirth, to your knowledge, has the procedure that the Human Resources Department uses to recruit operating, warehouse, maintenance mail room and food service personnel changed in any way between May of 1989 and May of 1983?

A To my knowledge, no.

THE COURT: Did you mean to say '83?

MR. MATANIC: 1993.

Q (By Mr. Matanic) Did you understand?

A I though I heard you say '89.

[101]

Q '89 and '93.

A I'm not aware of any changes.

Q Finally, Mr. Cutbirth, you would benefit financially if the AFT's motion on behalf of Local 12 were granted, would you not?

MR. WOOD: I'll object to the relevance.

THE COURT: Well, the objection is overruled.

A I would receive a wage increase.

MR. MATANIC: Thank you. No further questions at this time.

REDIRECT EXAMINATION

BY MR. WOOD

Q Mr. Cutbirth, is it you responsibility either as an employee of the Kansas City, Missouri School District or as president of Local 12 to track where employees of the Kansas City, Missouri School district go once they leave employment there?

A No.

MR. WOOD: Thank you.

MR. MATANIC: No further questions.

MR. SNYDER: No questions.

THE COURT: All right, sir, you're free to go.

(WITNESS EXCUSED.)

* * *

APPENDIX HH

Excerpts from Testimony of Mr. Arthur Rainwater (July 7, 1993)

* * *

[23]

* * *

Q Are you aware of any new developments since The Court's order that support the view that while the District has made progress since 1985, there still remains a lot to be done?

A Yes. I believe that the recent accreditation review by the State will support that view. It's our view that we spent a great deal of time on, and I think the State did. The State presented an initial report to us, preliminary report that we took great exception with. We disagreed with the methodology of that report. We disagreed with some of the data that was in report and certainly disagreed with the conclusions.

MR. EDELMAN: Your Honor, I believe to the extent that Mr. Rainwater has testified about the accreditation report, that that report itself is probably the best evidence of what occurred with regard to that process.

THE COURT: Well, I don't gather that he's trying to restate what's in the report.

Objection will be overruled.

[24]

BY MR. BORKOWSKI:

Q Let me ask you another question, Mr. Rainwater, perhaps to clarify. How does the accreditation report that you referred to, in your view, support the view that while the District has made progress, more needs to be done?

A The final report that resulted from our work with the State points out many, many instances, particularly in performance, student performance, as measured by test scores, as measured by drop-out rates, those kind of things, that there is progress being made and that's an important part of the State report. It very clearly says that progress -

MR. EDELMAN: Your Honor, with all due respect, I repose the objection. The witness just began to testify as to what the report said.

THE COURT: Your objection will be overruled. He's using that report to indicate how the program can be improved or matters that should be addressed in improving the program, and I think that's proper. The objection will be overruled.

A The report goes on to lead to a provisional accreditation, which I think says there is work still to be done by the Kansas City, Missouri School District. So I believe very clearly progress is being [25] made, according to that report, and that there is still substantial work that needs to be done in the School District.

* * *

[50]

* * *

Q You testified that you believe there still exists vestiges of prior segregation in the KCMSD?

A Yes, sir.

Q You believe one of those vestiges is the continued existence of some racially isolated schools; isn't that correct?

A Yes, I believe that's true.

Q But as far as student achievement is concerned, you don't believe the District and the State are under any court ordered

obligation to reach a certain level of student achievement, do you?

A I do not believe that the Court has ordered a definite level of achievement.

* * *

APPENDIX II

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

No. 77-0420-CV-W-4

KALIMA JENKINS, et al.,
Plaintiffs,

vs.

STATE OF MISSOURI, et al.,
Defendants.

ORDER

[Filed: Jan. 10 1994]

This matter is before the Court on the State's motion to alter or amend this Court's Order of August 9, 1993. Both the KCMSD and the plaintiffs have filed responses in support of the State's position on this issue. Additionally, this matter was one of the issues considered in a three day hearing November 15-18, 1993. After considering the arguments presented by the parties and the evidence and information available to the Court, it is the decision of the Court that the DMC be permitted to proceed with supervision of the implementation of the ShareNet Program.

On August 9, 1993 the Court considered the proposal of the DMC with respect to the ShareNet program. The Court reviewed the program and determined that there was a sufficient basis for the continued exploration of the benefits available from the implementation of the program. As a result, the DMC forwarded to the Court a proposed budget and recommendation for the adoption of the program by the Court. The DMC, by resolution dated September 21, 1993, approved the recommendation of the

VIDT Subcommittee in a unanimous vote. The motion of the VIDT Subcommittee read as follows:

> The DMC moves that the budget prepared by ShareNet for implementation of the VIDT plan approved by the Court on August 9, 1993 be forwarded to the District Court for approval. The DMC anticipates that the requested budget allocations for this program will decrease as start-up equipment and initial curriculum development costs are reduced or eliminated, and additional cost efficiencies are developed.

Subsequently, the DMC has submitted to the Court a revised budget, attached hereto, which included additional equipment expense for the KCMSD but reduced the overall budget by approximately $100,000.

The parties presented evidence at the hearing in opposition to the ShareNet proposal. However, the Court did not receive evidence from the DMC at the hearing. The Court finds that it is appropriate to consider the discussions and support of the DMC as substantive evidence in favor of the DMC proposal. The procedure used to bring this matter before the Court is unique and attributable to the nature of this case. There is no proponent of the DMC's proposal other than the committee itself. As the DMC is an arm of the Court, the result is that the Court has brought forth a proposal for a program to be implemented as a part of the remedial plan and this proposal finds no support among the parties to the litigation. The Court finds that it has the inherent authority to shape a remedial plan in manner required to address the effects of segregation and that the ShareNet program is an appropriate method of so doing.

The Court has carefully analyzed the suggestions in opposition to this proposal filed by each of the parties in this case. The Court notes that the evidence presented at the hearing on this matter closely tracked the parties' suggestions. However, the

Court does note that the AFT had no particular opposition to the program nor did it voice any particular support. The Court has determined that the manner in which this proposal ultimately came before the Court may well have had substantial bearing on the ultimate alignment of opposition. The plaintiffs voiced concern that the ShareNet plan was not a bona fide voluntary interdistrict transfer plan as contemplated by the Eighth Circuit. Therefore, plaintiffs argued that the Court should reject ShareNet in favor of their North Kansas City VIT proposal. The Court never contemplated that ShareNet and North Kansas City were either/or proposals. Rather, the ShareNet plan offers opportunities for the children of both the KCMSD and the participating suburban districts to interact both via computer and in joint field trip and summer camp settings. The Court believes that the timing of the consideration of the ShareNet proposal was a significant factor in both the plaintiffs' and the KCMSD's position on this plan.

The KCMSD has nothing to lose and everything to gain from participation in the ShareNet program. The argument that there is not sufficient time to participate in the program is specious at best. The Court points out to the District that when it develops new ideas and concepts for a desegregation funded program there are an infinite number of possibilities for implementation. The Court believes that there was too much consideration given to the either/or argument in favor of the North Kansas City plan and it resulted in the District's opposition to the ShareNet proposal. The District, in hopes of the Court's adoption of the North Kansas City plan, actually requested that the Court defer not deny the ShareNet program. The Court has carefully examined the ShareNet proposal and finds that it does offer opportunities which are beneficial to the remedial plan in the KCMSD.

The State's opposition to the ShareNet proposal is not at all unexpected. The State had sponsored a VIT plan as did the

plaintiffs. While the Court does not believe that the State's plan suffered from the same infirmities that the North Kansas City plan did, the Court's acceptance or rejection of the State's plan has absolutely no bearing on the Court's ultimate approval of the ShareNet program. The Court is not surprised that the State would be opposed to spending tax dollars for desegregation in the KCMSD as this has been a consistent position of the State. Nevertheless, the Court finds that the arguments presented by the State both through briefing and through evidence are not persuasive.

As the Court pointed out before, the ShareNet plan is before the Court in a most unusual procedural posture. The Eighth Circuit has made clear that a proper role of the DMC is to gather information and where possible develop programs that meet the goals of the remedial program. *Jenkins v. State of Missouri*, 981 F.2d 1009, 1015 (8th Cir. 1992). The Court finds that there is sound basis for the approval of the plan. Common sense dictates that where suburban and KCMSD students come together there will be increased opportunities available. The opportunity for interaction through computers is a positive step to the desegregation program. This Order is not to be interpreted as an endorsement of the ShareNet plan as the model for a Voluntary Interdistrict Transfer plan as contemplated by the Eighth Circuit. However, it is the opinion of the Court that the DMC has come forward with a program that offers the possibility of enhancing both the desegregation goal of the remedial plan as well as the possibility of providing a positive educational experience. Both the plaintiffs and the District have brought to the Court countless numbers of programs in the hopes that such programs will meet the aforementioned goals. The Court finds that while ShareNet is not a model VIT plan it does offer sufficient desegregative and educational opportunities for the Court to order it funded as part of the remedial plan.

The Court will order the funding and implementation of the ShareNet plan as proposed to the Court and in accordance with

the amended budget attached hereto. The Court will further order that the KCMSD comply with this Order and participate in a good faith manner in this program. The KCMSD shall set up a selection system for participation in the program whereby the students at the selected schools will have the opportunity for voluntary participation. Moreover, should the participating suburban districts decide to discontinue participation in the first three years they will be responsible for reimbursing the State for the acquisition cost of the equipment. If the KCMSD discontinues participation in the program, the suburban districts will be allowed to keep the equipment supplied under the program but the KCMSD will be required to reimburse the State for the acquisition cost of said equipment. Additionally, if either the suburban district or the KCMSD withdraw from participation in this program in the first three years, the Court will consider a motion for reimbursement by the State for such other costs of implementation as the Court may deem appropriate. After the first three years, should the suburban district elect to discontinue the program, they will be required to return the equipment to the State or reimburse the State the then current value of the equipment. Lastly, the Court finds that while this is not necessarily a model VIT plan as contemplated by the recent Eighth Circuit opinions, it is a program along those lines and will order the State to fund 100% of the cost of the program. The Court will order that the State implement a draw down procedure in accordance with those currently used by the State in order that the expenses incurred as a result of this Order be appropriately funded.

The Court believes that the ShareNet plan offers important opportunities to both the children of the KCMSD and the suburban school districts. This is an important first step in the renewed relationships between these entities. If the remedial plan is to have the success envisioned by this Court it is imperative that a VIT plan be a part of its. While ShareNet is not the model VIT, it is the beginning and has the effect of providing

enhanced multi-cultural as well as educational opportunities to the plaintiff school children. The Court suggests to the parties that they lend their support to this program and build relationships with the suburban districts to ensure future opportunities for reasonable VIT plans.

Accordingly, it is hereby

ORDERED that the State's motion to alter or amend this Court's Order of August 9, 1993 regarding ShareNet is denied; and it is further

ORDERED that the ShareNet proposal forwarded to the Court by the DMC is approved as set out herein; and it is further

ORDERED that the State is to fund 100% of the cost of implementation of the ShareNet plan in accordance with the budget attached hereto; and it is further

ORDERED that the KCMSD is to participate in good faith in the ShareNet program and the KCMSD is to set up a voluntary selection system at the participating schools.

/s/ Russell G. Clark
RUSSELL G. CLARK,
SENIOR JUDGE
UNITED STATES
DISTRICT COURT

Date: January 10th, 1994

VOLUNTARY INTER-DISTRICT TRANSFER

PILOT DEVELOPMENT BUDGET

I. *Program Administration*

1.	*Personnel	
	Superintendent of Special Projects .6FTE	$20,000.00
	Assistant .45 FTE	15,000.00
	Outside Auditor CPA	15,000.00
	Outside Evaluator	10,000.00
	Purchasing/Accounts Payable/Clerical (FTE)	15,000.00
2.	Out of Town Travel (4 trips x 2 x $1,000)	8,000.00
3.	Local Travel	750.00
4.	Computer, Printer, Software	1,750.00
5.	Phone	
	a. Line ($35.00 per mo. x 12 mos.)	420.00
	b Installation	125.00
	c. Long Distance/Toll Call	325.00

II. *Program Design/Delivery*

1.	*Peer Teachers on Loan to Support Classrooms	
	Two (2) master teachers @ $50,000 per teacher	50,000.00
2.	Curriculum Development	
	a. Writers' Training	
	Trainers - 4 x $750 per day x 5 days	15,000.00
	Expenses - Travel, etc.	5,000.00
	Writer Stipend $150 per day x 5 days x 25 representatives	18,750.00

*Pro-rated

	b. Research Writing Representatives	
	$150 per day x 20 days x 25 reps.	75,000.00
	c. Transition Development Team	
	$250 per day x 25 days x 4 reps.	25,000.00
	d. Staff support contracted @ $45,000	45,000.00
	e. Materials	
	(Software/Sample Curriculum)	10,000.00
	Materials/Printing Expense	25,000.00
	f. Revision Writing Team	
	Eight (8) writers x 20 days x $150 per day	24,000.00
3.	ShowMe Teacher Training	
	a. Out of Town	
	Workshops, Trainings, Conferences, Site Surveys, Air Fare $500 per persons x 15 people x 1	7,500.00
	Hotel $125 per day x 3 days x 15 people x 1	5,625.00
	*Per Diem $55 per day (15 people x 3 staff dev. days = 45 development days)	2,475.00
	*Staff Stipend/Substitute $75 per day (15 people x 3 staff dev. days = 45 development days)	3,375.00
	b. Project - Specific Training	
	Training (STS, Group Dynamics, Consensus Building, Group Discovery, Cross District, Portfolio Assessment) $700 per day x 20 days x 2 trainers	28,000.00
	Stipend/Sub Pay $75 per day x 10 days x 30 teachers)	22,500.00

Per Diem $15 per day x 10 days x 30 teachers	4,500.00

c. Specialty Workshop (2-5 day)

National Training Teams (Multi-cultural/Conflict Resolution)	20,000.00
Stipend/Sub Pay for Teacher Release 30 teachers x 10 days x $75 per day	22,500.00

III. ***Schools***

1. Classroom Equipment - Suburban District and KCMSD - Pilot Year Only

40 computers @ $1,475 each	59,000.00
40 printers @ $225 each	9,000.00
40 lap tops @ $2,115 each	84,600.00
40 phone lines x $50 per mo. x 12 mos	24,000.00
Installation	10,000.00
License/Software $700 x 30 sets + 20 sets	35,000.00
Materials (supplies/equip) 45 sets x $3,500 per set	157,500.00

2. Student Transportation - Pilot Year Only

Bus Trips	
Two (2) trips per mo. x 4 classrooms x $325 per trip x 9 mos.	23,400.00

3. **Per Pupil School Allocation 87,500.00

SUBTOTAL $985,595.00

*Per diem and staff stipend not to exceed allotments normally provided by sending school district

**Year One allocation adjusted due to partial implementation; $1,750.00 per student x 100 students in succeeding years

IV. ***Summer Camps***

Three Summer Camps for 100 Students (Multi-cultural activities, and science, math, social science experience)	191,620.00

BREAKDOWN OF SUMMER CAMP EXPENDITURES

Personnel

Twelve (12) MTs (Master Teachers) $675/wk x 3 wks + 2 days	27,540.00
Twelve (12) TA's (Teaching Assistants) $400/wk x 2 wks	9,600.00
Administrative Planning/Organizing/Directing	8,500.00
Development of Thematic Units and Class Materials (30 days x $150/day)	4,500.00
Safety/Transportation Officer	Incl. in Transportation Costs
Nurse/EMT $150 $150/day x 30 days	4,500.00
Technology Support $245/day x 30 days	7,350.00
Office Support Staff	4,500.00

Use of Camp Facilities

Scheduling of summer facilities, deposits, reservations, etc.	
Use of camp facilities, admission fees, etc.	36,825.00
Lunch, two (2) snacks and drinks (est. $6.50/day x 110 persons x 30 participant days)	21,450.00

Transportation Costs

Bus transportation (to and from camps) est. @ $1,200/day x 30 days	36,000.00
Bus transportation (field trips) est. @ 4 per session x 475	5,700.00
Student transportation (personal and/or rental)	3,375.00

Other Costs

Guest experts/trainers	2,250.00
Thematic studies equipment and curriculum consumables materials	13,500.00
Safety equipment - rental/purchase (mobile phones and communications, life jackets, etc.)	2,430.00
Computer networking at camps (hookup, etc.)	3,600.00
V.*Totals*	$1,177,215.00
*+5% Contingency	15,469.75
GRAND TOTAL	**$1,192,684.75**

*Contingency based on 5% of non-salaried estimated cost as listed on Appendix A.

APPENDIX A

Out of Town Travel (4 trips x 2 x $1,000)	8,000.00
Local Travel	750.00
Computer, Printer, Software	1,750.00
Phone	
a. Line ($35.00 per mo. x 12 mos.)	420.00
b. Installation	125.00
c. Long Distance/Toll Calls	325.00
e. Materials	
(Software/Sample Curriculum)	10,000.00
Materials/Printing Expense	25,000.00
Out of Town	
Workshops, Trainings, Conferences, Site Surveys,	
Air Fare $500 per persons x 15 people x 1	7,500.00
Hotel $125 per day x 3 days x 15 people x 1	5,625.00
Classroom Equipment - Suburban District and KCMSD - Pilot Year Only	
40 phone lines x $50 per mo. x 12 mos.	24,000.00
Installation	10,000.00
License/Software $700 x 30 sets + 20 sets	35,000.00
Materials (supplies/equip) 45 sets x $3,500 per set	157,500.00
Student Transportation - Pilot Year Only	
Bus Trips	
Two (2) trips per mo. x 4 classrooms x $325 per trip x 9 mos	23,400.00
	$309,395.00

$309,395 x 5% = $15,469.75

APPENDIX JJ

UNITED STATES COURT OF APPEALS
FOR THE EIGHTH CIRCUIT

No. 93-3975

Kalima Jenkins, by her friend, Kamau Agyei;
Carolyn Dawson, by her next friend Richard Dawson;
Tufanza A. Byrd, by her next friend, Teresa Byrd;
Derek A. Dydell; Terrance Cason, by his next friend,
Antoria Cason; Jonathan Wiggins, by his next friend,
Rosemary Jacobs Love; Kirk Allan Ward, by his next friend,
Mary Ward; Robert M. Hall, by his next friend, Denise Hall;
Dwayne A. Turrentine, by his next friend, Sheila Turrentine;
Gregory A. Pugh, by his next friend, David Winters, on behalf
of themselves and all others similarly situated;

Appellees,

American Federation of Teachers, Local 691,

Intervenor,

v.

State of Missouri; Mel Carnahan, Governor of the State of
Missouri; Bob Holden, Treasurer of the State of Missouri;
Missouri State Board of Education; Peter Herschend, Member
of the Missouri State Board of Education; Raymond
McCallister, Jr., Reverend, Member of the Missouri State
Board of Education; Susan D. Finke, President, Member of
the Missouri State Board of Education; Thomas R. Davis,
Member of the Missouri State Board of Education;
Robert E. Bartman, Commissioner of Education of the State
of Missouri; Gary D. Cunningham, Member of the Missouri
State Board of Education; Rebecca M. Cook, Member of the
Missouri State Board of Education; Sharon M. Williams,
Member of the Missouri State Board of Education;
Jacquelline Wellington, Member of the
Missouri State Board of Education;

Appellants,

School District, of Kansas City;
Walter L. Marks, Superintendent thereof,

Appellees.

Appeal from the United States District Court
for the Western District of Missouri.

Submitted: March 31, 1994
Filed: May 3, 1994

Before McMILLIAN, Circuit Judge, HEANEY and JOHN R. GIBSON, Senior Circuit Judges.

JOHN R. GIBSON, Senior Circuit Judge.

The State of Missouri again appeals, the second time in less than a year, an order of the district court[1] approving *Milliken II*[2] quality education programs. *Jenkins v. Missouri*, No. 77-0420-CV-W-4 (W.D. Mo. July 30, 1993). In this appeal of the programs ordered for the school years 1993-94 and 1994-95, the State asserts the same argument that we rejected with respect to the 1992-93 school year in *Jenkins v. Missouri*, 11 F.3d 755 (8th Cir. 1994) (*Jenkins IX*) (as amended on denial of rehearing), *rehearing en banc denied*, No. 90-2238 (8th Cir. Mar. 15, 1994). The State made only minor additions to the record the district court had already considered in earlier orders relating to the quality education issues and to the argument that these programs should be declared unitary under *Freeman v. Pitts*, 112 S. Ct. 1430 (1992). The State also argues that one component of the

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[1] The Honorable Russell G. Clark, Senior United States District Judge for the Western District of Missouri.

[2] *Milliken v. Bradley*, 433 U.S. 267 (1977). These programs included reduce class size, attainment and maintenance of AAA status, full-day kindergarten, early childhood education, extended day, effective schools, and district communications.

quality education programs, the funding for the full-day kindergarten program, has been rendered redundant by the passage of Missouri Senate Bill 380, affecting the school foundation formula. We affirm the district court's order and its decision on the quality education programs.

When KCMSD moved to continue the *Milliken II* quality education programs for the school years 1993-94 and 1994-95, the State raised the *Freeman v. Pitts* argument, as it had with respect to the 1992-93 year. The court held a one-day hearing. KCMSD presented very abbreviated testimony from Dr. Arthur Rainwater that his earlier testimony[3] about the *Milliken II* quality education programs was unchanged--that there was substantial possibility for further improvement, and that the systems were working well. *Cf. Jenkins IX*, 11 F.3d at 765 (summarizing Dr. Rainwater's similar testimony at earlier hearing). The State presented no live witnesses on this issue, but filed a declaration from Dr. Terrance Stewart, essentially reiterating his testimony from the earlier hearing. *Cf. Jenkins IX*, 11 F.3d at 764-65 (summarizing Dr. Stewart's testimony at earlier hearing).

The district court in an order entered July 30, 1993 approved continuation of the *Milliken II* quality education programs for

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[3] The district court held an extensive hearing on approval of the *Milliken II* quality education programs for the 1992-93 year, which we have described in *Jenkins IX*, 11 F.3d at 764. While KCMSD's motion to renew those programs was pending, *Freeman v. Pitts* was decided. The State then asked that the *Milliken II* quality education programs be declared unitary under the approach articulated in *Freeman* and *Board of Education v. Dowell*, 498 U.S. 237 (1991). On June 17, 1992 the district court ordered continuation of the *Milliken II* programs for the 1992-93 year, and we affirmed. *See Jenkins IX*, 11 F.3d at 760. We cited as additional support for the district court's order its April 16, 1993 consideration of the *Freeman* issue in adopting the long range magnet renewal plan, and also the district court's July 30, 1993 order concerning the *Milliken II* programs. *Jenkins IX*, 11 F.3d at 761-62. We have ordered, on the State's motion, that the record before the court in *Jenkins IX* be made a part of the record before the court in this appeal.

the school years 1993-94 and 1994-95.[4] The district court articulated its reasons for rejecting the *Freeman v. Pitts* argument in some detail. The district court found the State's arguments that these components were unitary to be unpersuasive. While the quality education components had been partially successful, they had not yet met the goals in their entirety. The State appeals again, relying on the same arguments it advanced in *Jenkins IX*.

I.

In *Jenkins IX*, we affirmed the June 17, 1992 order concerning the *Milliken II* quality education programs for 1992-93. We stated:

> The only evidence before the district court with respect to the degree of progress on elimination of vestiges of past discrimination was at best that a start had been made. The evidence on the record fell far short of establishing that such vestiges had been eliminated to the extent practicable. These tests, articulated in *Dowell* and *Freeman*, answer the State's argument that establishment of the programs by compliance with the court order is all that is required.
>
> . . .

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[4] At the time of our decision in *Jenkins IX*, we had before us that portion of the July 30, 1993 order dealing with salary issues, but the portion of the order relating to *Milliken II* programs had not been appealed. *See* 11 F.3d at 762. After the district court denied the State's motion for reconsideration on October 20, 1993, the State appealed on the *Milliken II* issues. During argument of *Jenkins IX* the parties did not refer to the July 30, 1993 order, nor was it mentioned in the argument of *Jenkins v. Missouri*, 13 F.3d 1170 (8th Cir. 1993) (*Jenkins X*). In *Jenkins IX* we discussed the *Milliken II* quality education portion of this order insofar as it "fleshes out the meaning of the earlier district court orders." 11 F.3d at 762.

> The State did not try to prove that it has demonstrated a good faith commitment to the whole of the court's decree.

11 F.3d at 765 (citations omitted).

The record now before us relevant to the *Freeman* issue has been supplemented to only a minor degree since the *Jenkins IX* appeal. Examination of the record before the district court when it made its order of July 30, 1993, as well as a review of the record made before its June 17, 1992 order, demonstrate the validity of our conclusions in *Jenkins IX*: that the State did not try to prove a history of good faith commitment to the whole of the court's decree; that the only evidence before the district court was that at best a start had been made; and that the evidence fell short of establishing that the vestiges of past discrimination had been eliminated to the extent practicable. 11 F.3d at 765. The State essentially repeats its arguments in *Jenkins IX* and argues that *Jenkins IX* was wrongly decided. We reject the State's argument on the merits. The court en banc has denied rehearing in *Jenkins IX*, *see Jenkins v. Missouri*, No. 90-2238 (8th Cir. March 1, 1994) (denying rehearing en banc). *Jenkins IX* governs our decision in this case on a record that is essentially identical on the *Freeman* issues.

There is still further reason why we must affirm. As our earlier opinion reflected, and as the record before us in this appeal demonstrates, the position of the State is that having implemented and funded these *Milliken II* programs for a seven year period, its obligation should end.[5] There can be no doubt that this

[5]The State says that its position in the district court was that "*Pitts* justified either an immediate or gradual return to the KCMSD of control and responsibility for the *Milliken II* programs." It summarized its argument by stating that it is "entitled to a declaration of unitary status with regard to the *Milliken II* quality education programs in place in the KCMSD." Further, "with regard to the quality of education component . . . the State sought withdrawal of District Court supervision after presenting evidence of compliance with the desegregation decrees of the District Court."

was its position in *Jenkins IX*,[6] and it maintains the same position today. The implications of the State's position were addressed head-on by the dissent from the denial of rehearing en banc in *Jenkins IX*:

> If the State's claim carries with it the unstated idea that having put the elements of a quality educational program in place it may now take its money and exit, stage left, leaving the KCMSD to finish the scene alone, I believe that partial unitary status is not at hand. But, if an equal opportunity to

[6]The State argued in *Jenkins IX* that it had complied fully with the district court's desegregation decree as to the *Milliken II* programs, "and is entitled to have this aspect of [KCMSD] operations declared unitary, at least regarding the State's obligations." "Because of the State's record of full and satisfactory compliance with this aspect of the desegregation decrees and because the State can do no more to ensure provision of quality education and remedial programs to the KCMSD than it has already done by funding the programs, the State meets squarely this measure of 'unitariness' for the *Milliken II* aspects of the desegregation remedy." The State argued that "this Court should either declare the *Milliken II* aspect of KCMSD's operations to be unitary" or reverse and remand for specific findings of facts.

Before the district court on the motion which led to *Jenkins IX*, the State first filed a rather general objection to the budget for the 1992-93 school year on February 7, 1992. After the decision in *Freeman*, the State filed a response with respect to this school year in which it stated: "*Pitts* supports the immediate elimination of the Year VIII [1992-93] programs as the first step in a phaseout process, the purpose of which is to ultimately totally reestablish local control over school district operations." "[T]he State believes the programs should be returned to local control with extraordinary funding ended now. In the alternative . . . a brief phaseout period could be imposed, gradually increasing the KCMSD responsibility for continued implementation and actual funding of the annual budget programs through its local autonomy and local resources." "It will be up to the KCMSD to decide whether, in what form and to what extent, to continue the programs at issue." "The [c]ourt here can take the first step toward returning control of the KCMSD to the local authorities by terminating its supervision over these annual budget programs, and requiring the District to resume both control and the fiscal responsibility for the continuation of such programs . . ."

> receive a quality education is now permanently available to each student in the KCMSD, and is thus available to erase, if the opportunity is reasonably pursued, the vestiges of past discrimination, then unitary status has been reached and control should be relinquished by the federal courts to the state and local governments.

No. 90-2238, slip op. at 26 (8th Cir. March 15, 1994) (Beam, J. dissenting, joined by Bowman, Wollman, Loken and Morris Sheppard Arnold, JJ.).

The State's position has simply been that its obligation for these programs is concluded and, in the colorful wording of the dissent, that it should "now take its money and exit, stage left." *Id.* This is precisely the meaning of the State's argument that its responsibility and obligation should be terminated. This has been rejected by the judges voting to deny rehearing en banc, and most tellingly by the five judges joining in the dissent to denial of rehearing.

Even when the State makes its alternative argument that if the programs are not terminated, they should be phased out gradually, the result would be increased financial burden on KCMSD. This would raise a serious possibility of substantial elimination or disruption of the quality education programs. Again, the dissent from the denial of rehearing explicitly stated in *Jenkins IX* that "equal opportunity to receive a quality education" should be "*permanently* available to each student in the KCMSD." *Id.* at 26 (emphasis added).

So far as the State is concerned, the crux of its responsibility for the *Milliken II* programs is funding. KCMSD must administer and operate these programs. The State seeks termination of the obligation to fund its share of the cost of these programs. The problem that remains, as the district court has been so mindful during the course of this litigation, is the KCMSD's ability to fund these programs.

As we mentioned in *Jenkins IX*, the district court has called for the parties to submit plans for financing "the magnet schools and the entire school district at a level commensurate with the current funding or at least at a level where the same quality of both facilities and instruction may be maintained," assuming withdrawal of court-ordered fundings within three, five, seven and ten years, alternatively. Order of April 16, 1993, slip op. at 21. The court's order has thus focused sharply on the *Freeman-Dowell* issues. The language of the district court's order in calling for such proposals is sufficiently broad to cover both the phase-out of the magnet school program funding and the *Milliken II* funding.

We are aware that the parties have now made filings with the district court pursuant to the April16, 1993 order, and we presume that the district court will in time conduct hearings on these issues. In *Jenkins IX*, we outlined many of those considerations:

> Among the factors which must inform *the sound discretion* of the court in ordering partial withdrawal are the following: whether there has been full and satisfactory compliance with the decree in those aspects of the system where supervision is to be withdrawn; whether retention of judicial control is necessary or practicable to achieve compliance with the decree in other facets of the school system; and whether the school district has demonstrated, to the public and to the parents and students of the once disfavored race, its good faith commitment to the whole of the court's decree and to those provisions of the law and the constitution that where the predicate for judicial intervention in the first instance.

11 F.3d at 763-64 (quoting *Freeman*, 112 S. Ct. at 1446 (emphasis added in *Jenkins IX*)). We framed the inquiry as outlined in *Dowell*:

> [T]he Supreme Court stated that in determining whether there was constitutional compliance in a school desegregation case, the district court "should address itself to whether the Board had complied in good faith with the desegregation decree since it was entered, and whether the vestiges of past discrimination had been eliminated to the extent practicable . . ."

Jenkins IX, 11 F.3d at 763 (quoting *Dowell*, 498 U.S. at 249-50).

The State argues that it has demonstrated its good faith commitment to all of the court's decrees, and that its objection to numerous aspects of the desegregation program in litigation does not negate such commitment or reflect an unwillingness or intransigence toward achieving the goal of providing equal educational opportunity. It argues that it has clearly met the Supreme Court standards for good faith commitment. In essence, the State is asking this court to determine an issue which the Supreme Court in *Dowell* and *Freeman* has made clear is an issue for factual determination by the district court. As we said in *Jenkins IX*, and as the record reflects in the appeal before us, the State has not attempted to make a factual showing on this issue for determination by the district court. 11 F.3d at 765. This issue must first be developed by the district court.

When the district court considers the *Freeman* and *Dowell* issues drawn into sharp focus by its order of April 16, 1993, and now briefed in detail by the parties, we are satisfied that the court will be mindful of its responsibility to make detailed fact-findings as it considers the several inquiries required by *Freeman* and *Dowell*. The long history of this litigation demonstrates that that order will likely be the subject of an appeal, and the district court will render substantial assistance to review on appeal by making a full and complete record. We are confident that when the district court's order is entered, we will have an adequate record before us for our review.

II.

The State also argues that passage of Missouri Senate Bill 380 requires an adjustment in the State's desegregation liability. Senate Bill 380 counts a full-time kindergarten child as one student for purposes of computing the foundation formula aid for school districts in Missouri, whereas the earlier formula counted such children as one-half a student. The State currently pays part of the cost of full-day kindergarten as a *Milliken II* quality education cost. As a result of the combination of Senate Bill 380 and the State's *Milliken II* obligations, the State argues that KCMSD will receive payments greater than the total cost of the full day kindergarten program, and that this is a windfall.

It must first be recognized that the funding under Senate Bill 380 measured by full-day kindergarten students need not be spent on kindergarten programs. It is simply a way of measuring allocations of general state aid that can be used for any school purpose.

The district court recognized that the future impact of Senate Bill 380 was far from certain. The State's witnesses testified that the exact amount KCMSD would receive could be significantly different due to a change in the method by which all students are counted, with the new system relying more heavily on daily attendance than the old system. There is a gradual phase-in of Senate Bill 380 formula in increments of 25% over a four year period, and the new formula would not be entirely implemented until the 1996-97 school year. Further, the appropriation process could increase or decrease the amount of money available, as could the amounts withheld for growth. In addition, there are uncertainties due to the state finance litigation.

These uncertainties are reason enough for affirming the district court's decision to reject the State's argument. Exactly what KCMSD may receive and when it will receive it because of change in the foundation formula is yet to be determined.

The State has not demonstrated that the district court made findings of fact that were clearly erroneous, or abused its discretion in rejecting the State's request to allow an off-set of the full-day kindergarten monies to reflect amounts received under Senate Bill 380.

We affirm the order of the district court.

A true copy.

Attest:

CLERK, U.S. COURT OF APPEALS,
EIGHTH CIRCUIT.

APPENDIX KK

DMC EXHIBIT 1 (JULY 22, 1994)

DESEGREGATION MONITORING COMMITTEE
FOURTH FLOOR-1211 MCGEE STREET
KANSAS CITY, MISSOURI 64106
816-472-0903

June 21, 1993

The Honorable Russell G. Clark
U.S. District Court for the Western
District of Missouri
3100 U.S. Courthouse
222 N. John Q. Hammons Pkwy.
Springfield, MO 65806

Dear Judge Clark:

The DMC considered and unanimously supported the proposal attached hereto. The Committee forwards this proposal to the Court in the hope that it will be considered as an initial positive step toward establishment of a VIDT plan.

Respectfully submitted,

/s/ Eugene E. Eubanks
Eugene E. Eubanks, Chair

EEE:kwm

Enclosure

cc: Ruth Alderson
Michael Fields
Arthur Benson
Shirley Keeler
Norman Hudson
Dr. Walter Marks

Board Services
scott raisher [sic]
Allen Snyder
Monitoring Committee

The ShareNet Plan

For

VOLUNTARY STUDENT TRANSFER

IN METROPOLITAN KANSAS CITY

I. "Informal Preliminary Proposal Addressing Voluntary Student Transfer In Metropolitan Kansas City" (Text)

II. Philosophical Setpiece

"Educating For a Peaceful World" (Text)

III. Cross-District Research and Discovery Units (Review Materials)

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Section B: Cross-District Discovery Unit Examples

1. "A Dream of A Team"

— Thematic unit with baseball

2. "StarDate 2220"

— Thematic unit based on Water/ecology

Section C: Statistical Data from ShareNet

"SHOW ME-Missouri"
Proposal

INFORMAL PRELIMINARY PROPOSAL

ADDRESSING

VOLUNTARY STUDENT TRANSFER IN

METROPOLITAN KANSAS CITY

Developed and presented by:

The participating Missouri School Districts

of the

ShareNet Association

April 28, 1993

"SHOW ME-Missouri"

This preliminary proposal is submitted by over two-thirds of the participating Missouri School Districts who are members of the ShareNet Association. (At this time all indicators support continued district involvement with the potential of more districts joining in the plan as it is further developed and refined.)

"SHOW-ME-Missouri" is: An Intrinsically Equitable, Academically Challenging, Technology Assisted Program for Grades 6-13, Resulting in an Associate of Arts Degree--

A program of this magnitude and change requires allies and partners. "SHOW ME-Missouri" encourages collaborative relationships among teachers, administrators, community leaders, college faculty, policymakers and associations. We know that significant and lasting change takes time. "SHOW-ME-Missouri" is a thoughtful and deliberate approach measured in multiple years or even a decade. Today's students will receive some benefit before they graduate, but future generations will receive the full benefits.

MISSION STATEMENT

"SHOW-ME-Missouri's Mission:

The grand challenge for the educational community created by the "SHOW ME-Missouri" Project is:

- to help students build themselves into equitable persons and academically skillful students through an innovatively structured, technology supported, educational design
- to provide, through the joint efforts of the community colleges, the K-12 public school environment and the

community, a resource-rich, educationally sound, multi-district project that is a bias-free student centered program

GOALS

- To provide a new learning community which is collaborative and free from the barriers created by prejudice and discrimination
- To shape in each student the beginnings of lifelong learning, providing experiences and guidance that promote the skill and confidence to continue that process, even as technology continues to change the ways learning is offered and accessed
- To establish learners who can move effectively and naturally among the tools of technology, in the service of their knowledge and growth

BACKGROUND

Our students have a critical need: to establish their character and world-view in an educationally effective environment which assumes and demonstrates equity, sensitivity and justice by invalidating racial, district, ethnic, religious or other artificially imposed barriers. These problems and attempts at their resolution have been the goal of many sincere efforts to bring about that climate of genuine equality within the educational environment of the Kansas City, Missouri School District.

Our students have another critical need: to gain technological literacy in this century - and the next. This literacy will be the portal to workplace and civic power. It has been said that very soon technological literacy will constitute a new watershed, the literate side of which will be those with power and the non-literate side those who have no means to enter the mainstream. It would be ironic to free students from one kind of discriminative oppression only to deliver them into another.

This proposal seeks to obviate both dangers. The "SHOW ME-Missouri" program creates an environment in which ethnically mixed students are empowered to learn in a setting of equity, together seeking - through academics and technology - paths to their place in the world. *Through these new educational strategies and tools, students will come together in benign neutrality; learning to the limit of their personal horizon but actively needing inquiry and research interactions with their peers on the learning team as they examine issues of mutual importance.* Increasingly, this same teaming relationship is basic to the workplace for which students are ultimately preparing.

PHILOSOPHY

This strategy recognized many new features. Individual students learn faster, with more passion and with more retention, as they master concepts, in depth, from many academic disciplines while they are learning around a broad theme (Thematic Learning).

Technology is a prejudice-free teaching tool, around which new approaches to education have been created for this program that are oblivious to the personal traits or race of the user. It is a medium that treats everyone the same, rewarding learning, intellect, focus, skill, and collaborative work - while indifferent to all else.

Teachers who are able to "team" their professional disciplines deliver a more effective and compelling learning experience to students (Multi-Disciplinary Team Teaching). Much teacher effort and student frustration stem from the attempt to keep students learning at the same pace. The power of computing technology can release them from that artificial pattern (Individualized Learning).

Time blocks in which this kind of learning goes forward are variable and often much longer than the standard fifty minute

class period, a potentially complicated mechanical problem which is also well served by using computer technology. (Flexible Scheduling)

A new style of "grading" is inherent in this new kind of education, so the products of student inquiry and research are collected as evidence of the student's building skill and conceptual growth in each traditional academic discipline. Artificial standards are no longer employed. The ability to memorize is no longer as important as the quality of understanding and application, as demonstrated by the products of student work. ("Portfolio Assessment")

A program utilizing these assumptions will soon produce students who were ready to do work considered "college level" while still in their high school years (Dual Credit, high school/ junior college)

PROGRAM

Students will enter the program at the middle school - 6th grade - level. They will work in learning teams in which the members are purposely chosen and combined to reflect member diversity. For instance, matching students from an inner city school with the different cultural mix of suburban students in the same work teams will achieve this balance. From the classes that would have been in the traditional system, a new "family" of diverse learning teams will be created. These "SHOW ME" scholars teams will be guided through academic pursuits of challenging inquiry learning.

These students will experience their learning in academically stimulating thematic topics, the content of which will also prepare them to work in their learning teams. Themes will include: systems, comparative cultures, teaming relationships, communication skills and conducting research. The themes will offer students the means to be enthusiastic participants in a stimulating and educational dialog.

As appropriate, students will also have guidance from community mentors or leaders with expertise in fields of endeavor that parallel their studies. They will, in "field trip" contexts, meet together at strategic community sites (community colleges, businesses and cultural locations). These meetings are held to meet the needs of the students by broading [sic] the scope of their thematic learning.

This program is educationally driven, however the students will be required to use the technology to collaborate, conduct research, communicate and complete assignments.

Teachers will guide student inquiry in conducting research, sharing data, resolving conflicts and problem solving. For this task they will need either experience in teaching with these new educational approaches, or specialized training or both. These educators will teach thematically, presenting a common core of learning as part of an interdisciplinary team, working in flexible and non-standard blocks of time, helping students create portfolios for assessment and be adept at using technology in the service of education.

Once trained, even at this early grade, students will easily communicate over the telecommunication system with their distant peers on an almost daily basis, saving conversational interaction for those less frequent times when they can come together and work face-to-face.

The same options will be true of their mentored relationships. The frequent teaching and guiding interactions permitted by student/mentor telecommunication will substantially accelerate the pace of project and inquiries. The mentors can also be contacted by E Mail which makes scheduling easier for the schools as well as the mentor.

These same teaching patterns and configurations will be true at upper levels as well, with different and more demanding contex-

tual requirements. Advanced applications will foster communication and problem solving, including themes in social concerns such as human organization patterns, human development and environmental balances.

At the end of the student's high school junior year, it is anticipated that they will have successfully completed enough required credits to meet high school graduation guidelines.

The last two high school years can position students so they are expected to spend an increasing portion of the class day at one of the metropolitan community colleges to begin additional studies at the college level, for which they will receive both high school and college credit.

By the thirteenth year, the student will have achieved an Associate of Arts degree or the equivalent of two years completed of a four year college program.

The character of the education we are striving for will be oblivious to differences of ethnicity, gender, or cultural origin and highly sensitive to differences of academic skill and inquiry ability. Because the computing and multi-technology tools available today - the very tools that provide global networking and collaboration in the world of work - empower our students to become a part of this world, they will be prepared. They will be a generation of capable individuals who have continually grown in their ability to work productively and with satisfaction among peers who are unlike them in many ways.

THE TRANSITIONAL PHASE

This program will, by the third year, provide an uninterrupted stream for student progress from 6th grade through 13th grade and on to the Associate's Degree. However, during years one and two, the program must begin with logical enclaves of pilot programs at selected grades.

Chart A

Program Growth Chart

Year 1:	6th	7th	8th	9th	10th	11th	12th	13th
Year 2:	6th	7th	8th	9th	10th	11th	12th	13th
Year 3:	6th	7th	8th	9th	10th	11th	12th	13th

In the first year, the program will be introduced at the SIXTH AND TWELFTH GRADE levels. To be accepted into the transitional "SHOW ME" program years, students will simply need to be academically on track (if in upper grades, requirements fulfilled to graduate on time), and free of history of serious disciplinary problems.

The Twelfth graders' involvement in the transitional phase of "SHOW ME" will be natural. Facing the end of their public school career, they are likely to be very attracted by funding support for their first year of college. Unlike those who come after them, these students will have not grown adept in the "SHOW ME" program concepts and skills which five years of involvement through the full program sequence will give future students. However, for this transitional program start-up, they will need readiness for graduation and ability to demonstrate more collaborative and independent work than they may have done in the past.

Transitional "SHOW ME" scholars will spend their mornings at the designated community college, guided by program faculty who accompany them from their high school and by matching

program faculty at the community college. In the morning, they will arrive at their high school campus in their usual way, be bussed to the college campus and be return-bussed in the early afternoon. They may then do high school coursework, participate in extracurricular activities as they wish, and return home in their usual way.

In the third and final year, the program will begin to be an exclusive sequence, in which students may enter at 6th, 7th or 8th grade, but after the 8th grade commitment year, no new students will be admitted. This will naturally mean that the program grows smaller each year as it moves toward year thirteen, with "surviving" students having considerable commitment and abilities to learn within its structure.

Parent information and involvement will be an important part of this program since "SHOW ME's" structure and grading will be new, and they will need to be at ease with the philosophy of the program and their child's future in it.

TEACHER STAFF DEVELOPMENT

In the "SHOW ME" program, education will not happen in the traditional way, but in ways that correspond with future trends in education.

To be effective, teachers will need both desire and flexibility to establish this new learning climate and these new social and intellectual growth patters between educator and student, student and student, or student and mentor.

Inservice education, professional collaboration and experience will all be needed to establish teacher competence and comfort in: cooperative (core-knowledge) teaching, thematic content structuring and delivery of thematic content, flexible time commitments, professional collaboration for distance team teaching, itinerant teaching in several environments and portfolio assessment.

Content mastery, beyond the teacher's specialty discipline, will be required in: managing technology in education, conflict resolution, multi-cultural awareness and teaching inquiry groups.

SUMMARY

With "SHOW ME-Missouri", students will be learning in a medium that reflects the quality of society today and eminently prepares them to evolve with society tomorrow, without gaps between the learning environment and the "real world".

This evolution capacity is in harmony with the premise of the January 1993 School Finance (Kinder) Court decision, Judge Kinder stating in his ruling to the Missouri state [sic] General Assembly that since education is a fundamental right, "it must be maintained at an ever-evolving level to assure the preservation of the rights and liberties of the people." (pg. 28)

The character of the education we are striving for will be oblivious to differences of ethnic, gender, or cultural origin and highly sensitive to differences of academic skill and inquiry ability. Because the computing and multi-technology tools available today - the very tools that provide global networking and collaboration in the world of work - empower our students to become a part of this world, they will be prepared. They will be a generation of capable individuals who have continually grown in their ability to work productively and with satisfaction among peers who are unlike them in many ways.

SUGGESTED CONTRACTUAL CONSIDERATIONS

The following provisions are suggested for the ShareNet Voluntary Inter-district Plan entitled "SHOW ME Missouri".

- Students electing to participate must be "on track to graduate on time"; be free of any past serious disciplinary problems, or issues involving weapons or controlled substances.

- Participating school districts will have a reasonable window of time (i.e. 20 working days) to join or be released from the preliminary plan, contingent upon remarks, suggestions or approval of the appropriate voluntary monitoring committees and the courts.
- The plan will not be implemented until all approvals, court or other's are in place.
- The costs of implementation for the plan shall be borne by the state, with costs clearly spelled out and easy to understand for all parties.
- Participants will be indemnified and held harmless relative to any involvement in this plan.
- Suburban school districts will not be held to student or teacher quotas.

Educating for a Peaceful World

Morton Deutsch

This article outlines a program of what schools can do to encourage the values, attitudes, and knowledge that foster constructive rather than destructive relations, which prepare children to live in a peaceful world. It describes four key components of such programs: cooperative learning, conflict resolution training, the constructive use of controversy in teaching subject matter, and the creation of dispute resolution centers in schools.

Lewis P. Lipsitt served as action editor for this article.

This article was presented as the presidential address to the division of Peace Psychology at the 99th Annual Convention of the American Psychological Association in San Francisco on August 3, 1991.

Correspondence concerning this article should be addressed to Morton Deutsch, International Center for Cooperation and Conflict Resolution, Teachers College, Columbia University, New York, NY 10027.

Families and schools are the two most important institutions that influence developing children's predispositions to hate and to love. Although the influence of the family comes earlier and is often more profound, there is good reason to believe that children's subsequent experiences in schools can modify or strengthen their earlier acquired dispositions. In this article, I outline a program that schools can follow to encourage the development of the values, attitudes, and knowledge that foster constructive rather than destructive relations, which prepare children to live in a peaceful world.

Many schools do not provide much constructive social experience for students. Too often, schools are structured in ways that

pit students against one another. They compete for teachers' attention, for grades, for status, and for admission to prestigious schools. Being put down and putting down others are pervasive occurrences. Many of us can recall classroom experiences of hoping that another student, who was called on by the teacher instead of us, would give the wrong answer so that we could get called on and give the right answer.

In recent years, it has been increasingly recognized that schools have to change in basic ways if we are to educate children so that they are for rather than against one another, so that they develop the ability to resolve their conflicts constructively rather than destructively and are prepared to live in a peaceful world. This recognition has been expressed in a number of interrelated movements: cooperative learning, conflict resolution, and education for peace. In my view, there are four key components in these overlapping movements: cooperative learning, conflict resolution training, the constructive use of controversy in teaching subject matters, and the creation of dispute resolution centers in the schools.[1] I discuss each briefly, with more emphasis on cooperative learning and conflict resolution because I have worked more extensively in these two areas and because they provide a valuable base for education in constructive controversy and mediation.

Cooperative Learning

Although cooperative learning has many ancestors and can be traced back for at least 2,000 years, it is only in this century that there has been development of a theoretical base, systematic

[1] By this emphasis, I do not mean to imply that students should not also acquire at the appropriate age level substantive knowledge in such fields as political science, international relations, arms control and disarmament, economic development, the global environment, and world trade, which are also important to world peace, and other substantive knowledge and skills necessary to function as responsible adults.

research, and systematic teaching procedures for cooperative learning. There are five key elements of cooperative learning (Johnson, Johnson, & Holubec, 1986). The most important is *positive interdependence.* Students must perceive that it is to their advantage if other students learn well and that it is to their disadvantage if others do poorly. This can be achieved in many different ways: through mutual goals (goal interdependence); division of labor (task interdependence); group members (resource interdependence); and by giving joint rewards (reward interdependence).

In addition, cooperative learning requires *face-to-face interaction* in which students can express their positive interdependence in behavior. It also requires *individual accountability* of each member of the cooperative learning group to one another for mastering the material to be learned and for providing appropriate support and assistance to each other. Furthermore, it is necessary for the students to be trained in the *interpersonal and small group skills* needed for effective cooperative work in groups. Finally, cooperative learning also involves providing students with the time and procedures for *processing* or analyzing how well their learning groups are functioning and what can be done to improve how they work together. It is desirable to compose cooperative learning groups that are heterogeneous with regard to gender, academic ability, ethnic background, and physical disability.

Hundreds of research studies have been done on the relative effects of cooperative, competitive, and individualistic learning experiences (see Johnson & Johnson, 1983, 1989). The various studies of cooperative learning are quite consistent with one another and with initial theoretical work and research on the effects of cooperation and competition (Deutsch, 1949a, 1949b) in indicating very favorable effects on students. Students develop a considerably greater commitment, helpfulness, and caring for each other regardless of differences in ability level,

ethnic background, gender, social class or physical disability. They develop more skill in taking the perspective of others, emotionally as well as cognitively. They develop greater self-esteem and a greater sense of being valued by their classmates. They develop more positive attitudes toward learning, school, and their teachers. They usually learn more in the subjects they study by cooperative learning, and they acquire more of the skills and attitudes that are conducive to effective collaboration with others.

It is evident that cooperative education fosters constructive relations. Moreover, when used by skillful teachers, it can help children overcome alienated or hostile orientations to others that they have developed from earlier experiences (see Johnson & Johnson, 1989, and Deutsch et al., 1992, for a more extensive discussion of mental health effects).

However, it is important to realize that, although the concept of cooperative learning is simple, its practice is not. Changing a classroom and school so that they emphasize cooperative learning requires that teachers learn many new skills ways of teaching students cooperative skills, ways to monitor and intervene in student work groups to improve students' collaborative skills, methods of composing student groups and structuring cooperative learning goals so that groups are likely to work well together, ways of developing curriculum materials to promote positive interdependence, ways to create constructive academic controversies within the cooperative groups, and ways of integrating the cooperative learning with competitive and individualistic learning activities. It usually takes teachers about three to four years to become well skilled in the use of cooperative learning.

Sometimes parents and teachers have misconceptions about cooperative learning that make them resistant to it initially.[2] There are several myths that it is well to confront (see Johnson et al., 1986, for a more extensive discussion). The following are four common myths.

1. Cooperative learning does not prepare students for the adult world, which is highly competitive. There are two points to be made. (a) The ability of people to work cooperatively is crucial to building and maintaining stable marriages, families, communities, friendships, careers, and a peaceful world. Although competition has often been stressed as the key to success in the world of work, the reality is that individual as well as corporate success depends on effective cooperation and teamwork (Kohn, 1986). (b) Schools, even with extensive cooperative learning, would provide much experience with individual and group competition. The issue is not to eliminate competition and individualism from the schools but to provide a more appropriate balance with cooperation.[3] Although children are exposed to much competition in schools, my impression is that schools

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[2] There has been little research on factors affecting the acceptance of or resistance to cooperative learning (conflict resolution, constructive controversy, or mediation) programs by teachers, parents, or school systems. My impression is that the interest and demand for such programs have been increasing at an accelerating rate during the past 10 years and that the supply of well-trained experts to train teachers and administrators in these areas is insufficient to meet the demand. In the near future, I expect that schools of education will develop educational programs for new teachers and administrators in these areas.

[3] Not enough research has been done yet to specify an appropriate balance among the different modes of teaching. It would undoubtedly vary as a function of such factors as the skills of the individual teacher, the type of subject matter to be learned, and the characteristics of the students. Nevertheless, the available research indicates that, in a wide variety of contexts and subject matter with diverse students, the use of cooperative learning is beneficial.

rarely teach in a systematic way generalizable skills for being effective competitors.

2. High-achieving students are penalized by working in heterogeneous cooperative learning groups. Research evidence clearly indicates that high-achieving students learn at least as much in cooperatively structured classrooms as they do in the more traditional ones (Johnson & Johnson, 1983, 1989). They frequently learn more: Teaching less able students often solidifies their own laboratively, and they learn how to be mutually respecting despite differences in ability. This is not to deny that some high achievers and help from their teachers and their classmates to appreciate the benefits they can obtain from cooperative learning. It should also be recognized that cooperative learning does not imply that high achievers must learn and work at the same place as low achievers. Nor does it imply that high achievers will lack opportunities to work alone or to work cooperatively with other high achievers.

3. Grading is unfair in cooperative learning. There are many ways of creating positive interdependence in cooperative learning groups; group grading is one way but it is not necessary. When group grades are used, individual grades may also be used. Although students sometimes complain about grades, complaints appear to be less frequent in cooperative learning classrooms than in more traditional ones. Students are able to recognize that how well people do in life is affected not only by how well they perform as individuals, but also by how well the groups, teams, corporations, and nations of which they are members perform.

4. The good students do all the work, the lazy students get a free ride. A central feature in cooperative learning is individual accountability. If a student is "goofing off," this becomes a problem for the group that, with encouragement and appropriate help from the teacher, the group can usually solve. In solving the problem, the group learns a great deal and the poorly motivated,

alienated, withdrawn, or reclusive student often benefits enormously as he or she becomes an active participant in cooperative learning.

Conflict Resolution Training

Conflict is an inevitable feature of all social relations. conflict can take a constructive or destructive course, it can take the form of enlivening controversy or deadly quarrel. There is much to suggest that there is a two-way relation between effective cooperation and constructive conflict resolution. Good cooperative relations facilitate the constructive management of conflict; the ability to handle constructively the inevitable conflicts that occur during cooperation facilitates the survival and deepening of cooperative relations.

In recent years, conflict resolution training programs have sprouted in a number of schools, industries, and community dispute-resolution centers. In this article, I focus on such programs in schools. Although I believe these programs are very promising, they are relatively new and little systematic research on their effectiveness has been done. There are many different programs, and their contents vary with the age and background of the students.

Nevertheless, there are some common elements running through most programs. They derive from the recognition that a constructive process of conflict resolution is similar to an effective, cooperative problem-solving process (in which the conflict is perceived as the mutual problem to be solved) whereas a destructive process is similar to a win-lose, competitive struggle (Deutsch, 1973). In effect, most conflict resolution training programs seek to instill attitudes, knowledge, and skills that are conducive to effective, cooperative problem solving and to discourage the attitudes and habitual responses that give rise to win-lose struggles. Below, I list the central elements included in many training programs, but I do not have the space to describe

the ingenious techniques that are used in teaching them. The sequence in which they are taught varies as a function of the nature of the group being taught.

1. Know what type of conflict you are involved in. There are three major types of conflict: the zero-sum conflict (a pure win-lose conflict), the mixed-motive (both can win, both can lose, or one can win and the other lose), and the pure cooperative (both can win or both can lose). It is important to know what kind of conflict you are in because the different types require different types of strategies and tactics (see Lewicki & Litterer, 1985; Pruitt & Rubin, 1986; Walton & McKersie, 1965). The common tendency is for inexperienced parties to define their conflicts as win-lose even though it is a mixed-motive conflict. Very few conflicts are intrinsically win-lose conflicts, but if they are misperceived to be such, the parties involved are apt to engage in a competitive, destructive process of conflict resolution. This is so unless there are very strong accepted norms or rules regulating the nature of the competitive interaction (as in competitive games).

The strategies and tactics of the different types of conflict differ. In a zero-sum conflict one seeks to amass, mobilize, and use the various resources of power (Lasswell & Kaplan, 1950) in such a way that one can bring to bear on the conflict more effective, relevant power than one's adversary. If this is not possible in the initial area of conflict, one seeks to transform the arena of conflict into one in which one's effective power is greater than one's adversary's. Thus, if a bully challenges you to a fight because you won't "lend" him or her money and he or she is stronger than you (and you cannot amass the power to deter, intimidate, or beat the bully), you might arrange to change the conflict from a physical confrontation (which you would lose) to a legal confrontation (which you would win) by involving the police or other legal authority. Other strategies and tactics in win-lose conflicts involve outwitting, misleading,

seducing, blackmailing, and the various forms of the black arts that have been discussed by Machiavelli (1513/1950), Potter (1965), Schelling (1960), and Alinsky (1971), among others. The strategy and tactics involved in mixed-motive conflicts are discussed below. My emphasis is on the strategy of cooperative problem solving to find a mutually satisfactory solution to the conflict and on the development and application of mutually acceptable fair principles to handle situations in which the aspirations of both sides cannot be realized equally. The strategy and tactics of the resolution of cooperative conflicts involve primarily cooperative fact-finding and research as well as rational persuasion.

2. Become aware of the causes and consequences of violence and of the alternatives to violence, even when you are very angry. Become realistically aware of how much violence there is, how many young people die from violence, the role of weapons in leading to violence, how frequently homicides are precipitated by arguments, and how alcohol and drugs contribute to violence. Become aware of what makes you very angry; learn the healthy and unhealthy ways you have to expressing anger. Learn how to actively channel your anger in ways that are not violent and are not likely to provoke violence from the other. Understand that violence begets violence and that if you "win" an argument by violence, the other will try to get even in some other way. Learn alternatives to violence in dealing with conflict. Prothrow-Smith (1987) has developed a very helpful curriculum for adolescents on the prevention of violence.

3. Face conflict rather than avoid it. Recognize that conflict may make you anxious and that you may try to avoid it. Learn the typical defenses that you use to evade conflict (e.g., denial, suppression, becoming overly agreeable, rationalization, postponement, premature conflict resolution). Become aware of the negative consequences of evading a conflict, such as irritability, tension, and persistence of the problem. Learn what kinds of

conflict are best avoided rather than confronted for example, conflicts that will evaporate shortly, those that are inherently unresolvable, and win-lose conflicts that you are unlikely to win.

4. Respect yourself and your interests, and respect the other and his or her interests. Personal insecurity and sense of vulnerability often lead people to define conflicts as life or death, win-lose struggles even when they are relatively minor, mixed-motive conflicts. This definition may lead to conflict avoidance, premature conflict resolution, or obsessive involvement in the conflict. Helping students develop respect for themselves and their interests enables them to see their conflicts in reasonable proportion and facilitates their constructive confrontation. Helping students learn to respect the other and the other's interests inhibits the use of competitive tactics of power, coercion, deprecation, and deception that commonly escalate the issues and often lead to violence.

Valuing oneself and others, as well as respect for the differences between oneself and others, are rooted in the fundamental moral commitment to the principle of universal human dignity. This core value and its derivatives not only should be emphasized in the curricula of many subject matters (e.g., literature, geography, history, social studies) from kindergarten through the 12th grade, in addition is the conflict resolution curricula, but also should be learned by students from their observations of how teachers and school administrators treat students and other people in and around the schools.

5. Avoid ethocentrism: Understand and accept the reality of cultural difference. Be aware that you live in a community, a nation, and a world with people from many different cultures. People from different cultures may differ from you in their appearance, dress, behavior, perceptions, beliefs, preferences, values, history, and ways of thinking about conflict and negotiation. What you take to be self-evident and right may not seem that way to people from different cultural backgrounds and,

conversely, what they take as self-evident and right may not seem that way to you. Learn to understand and accept the reality of cultural differences; try to understand the other's culture and try to help the other to understand yours. Expect cultural misunderstandings, and use them as opportunities for learning rather than as a basis of estrangement.

6. Distinguish clearly between *interests* and *positions*. Positions may be opposed, but interests may not be (Fisher & Ury, 1981). The classic example from Follett (1940) is that of a brother and sister, each of whom wanted the only orange available. The sister wanted the peel of the orange to make marmalade; the brother wanted to eat the inner part. Their positions ("I want the orange") were opposed, but their interests were not. Often when conflicting parties reveal their underlying interests, it is possible to find a solution that suits them both.

7. Explore your interests and the other's interests to identify the common and compatible interests that you share. Identifying shared interests makes it easier to deal constructively with the interests that you perceive as being opposed. A full exploration of one another's interests increases empathy and facilitates subsequent problem solving. For an excellent discussion of how to develop empathy and a sense of shared interests, see Schulman and Mekler (1985).

When considerable distrust and hostility have developed between the conflicting parties, it may be useful to have third parties help in this process of exploration. The third parties may serve one or more functions. They may serve as facilitators or as conciliators (or therapists) who help the parties control and reduce their distrust and hostility enough to permit them to engage in this process themselves. They may serve as mediators who directly assist the parties in this process themselves. They may serve as mediators who directly assist the parties in this process or even undertake the exploration for the conflicting parties, doing what the parties are unable or unwilling to do.

There has been considerable discussion of such third-party intervention (including the selection, training, and ethical requirements for third parties) in Folberg and Taylor (1984), Kelman (1979), Kressel (1985), Kressel, Pruitt, and Associates (1989), and Rubin (1980).

8. Define the conflicting interests between yourself and the other as a mutual problem to be solved cooperatively. Define the conflict in the smallest terms possible, as a "here-now-this" conflict rather than as a conflict between personalities or general principles that is, as a conflict about a specific behavior rather than about who is a better person. Diagnose the problem clearly, and then seek creative new options that lead to mutual gain. If no option for mutual gain can be discovered, seek to agree on a fair rule or procedure for deciding how the conflict will be resolved. However, not all conflicts can be solved to mutual satisfaction even with the most creative thinking. In such cases, agreeing on a fair procedure to determine who gets his or her way, or seeking help from neutral third parties when such an agreement cannot be reached, may be the most constructive resolution possible (see Lewicki & Litterer, 1985, for an excellent discussion of the strategy and tactics of integrative bargaining). To the extent that the parties see the possibility of a mutually satisfying agreement, they will be more able to listen to one another in an understanding, empathic manner, and, of course, the converse is true too.

9. In communicating with the other, listen attentively and speak so as to be understood. This requires an active effort to take the perspective of the other and to check continually your success in doing so. You should listen to the other's meaning and emotion in such a way that the other *feels* understood as well as is understood. Similarly, you want to communicate to the other your thoughts and feelings in such a way that you have good evidence that he or she understands the way you think and feel.

The feeling of being understood, as well as effective communication, facilitates constructive resolution.

Johnson and Johnson (1987), Lewicki and Litterer (1985), Prutzman, Stern, Burger, and Bodenhamer (1988), and many others have provided excellent discussions and practical exercises for developing effective communicating and listening skills. As a communicator, you want to be skilled in obtaining and holding the other's attention, in phrasing your communication so that it is readily comprehended and remembered, and in acquiring the credibility that facilitates acceptance of your message. Skills in taking others' perspectives and obtaining feedback about the effectiveness of your communications are important. Listening actively and effectively entails not only taking the perspective of the other so that you understand the communicator's ideas and feelings but also communicating your desire to understand the other and indicating, through paraphrasing your understanding or through questions, what you do not understand. Role reversal seems to be helpful in developing an understanding of the other's perspective and providing checks on how effective the communication process has been.

10. Be alert to the natural tendencies to bias, misperceptions, misjudgments, and stereotyped thinking that commonly occur in yourself and the other during heated conflict. These errors in perception and thought interfere with communication, make empathy difficult, and impair problem solving. Psychologists can provide a checklist of the common forms of misperception and misjudgment that occur during intense conflict. These include black-white thinking, demonizing the other, shortening your time perspective, narrowing your range of perceived options, and the fundamental attribution error. The fundamental attribution error is illustrated in the tendency to attribute the aggressive actions of the other to the other's personality while attributing your own aggressive actions to external circumstances (such as the other's hostile actions). The ability to

recognize and admit your misperceptions and misjudgments clears the air and facilitates similar acknowledgment by the other (see Jervis, 1976; Kahnemen, Slovic, & Tversky, 1982; Nisbett & Ross, 1980).

11. Develop skills for dealing with difficult conflicts so that you are not helpless when confronting those who are more powerful, who don't want to engage in constructive conflict resolution, or who use dirty tricks. Fisher and Ury (1981) have discussed these matters very helpfully in the final three chapters of their well-known book, *Getting to Yes: Negotiating Agreements Without Giving In.* I shall not summarize their discussion but rather emphasize several basic principles. First, it is important to recognize that you become less vulnerable to intimidation by a more powerful other, to someone who refuses to cooperate except on his or her terms, or to someone who plays dirty tricks (deceives, welshes on an agreement, personally attacks you, etc.) if you realize that you usually have a choice: You don't have to stay in the relationship with the other. You are more likely to be aware of your freedom to choose between leaving or staying if you feel that there are alternatives to continuing the relationship that you can accept. The alternative may not be great, but it may be better than staying in the relationship. The freedom to choose prevents the other, if he or she benefits from the relationship, from making the relationship unacceptable to you.

Second, it is useful to be open and explicit to the other about what he or she is doing that is upsetting you and to indicate the effects that these actions are having on you. If the other asserts that you have misunderstood or denies doing what you have stated, and if you are not persuaded, be forthright in maintaining that this remains a problem for you. Discuss with the other what could be done to remove the problem (your misunderstanding of the other, your need for reassurance, or the other's noxious behavior).

Third, it is wise to avoid reciprocating the other's behavior and to avoid attacking the other personally for his or her behavior (i.e., criticize the behavior and not the person); doing so often leads to an escalating vicious spiral. It is helpful to look behind the other's behavior with such questions as, "I wonder what you think my reaction is to what you have said?" or "I am really curious. What do you think this will gain for you?" It is also sometimes useful to suggest to the other more appropriate means for pursuing his or her interests than the ones that he or she is currently using.

A phrase that I have found useful in characterizing the stance one should take in difficult (as well as easy) conflicts is to be "firm, fair, and friendly." *Firm* in resisting intimidation, exploitation, and dirty tricks; *fair* in holding to one's moral principles and not reciprocating the other's immoral behavior despite his or her provocations; and in the sense that one is willing to initiate and reciprocate cooperation.

12. Know yourself, and how you typically respond in different sorts of conflict situations. As I have suggested earlier, conflict frequently evokes anxiety. In clinical work, I have found that the anxiety is often based on unconscious fantasies of being overwhelmed and helpless in the face of the other's aggression or of being so angry and aggressive that you will destroy the other. Different people deal with their anxieties about conflict in different ways. I have found it useful to emphasize six different dimensions of dealing with conflict that can be used to characterize a person's predispositions to respond to conflict. Being aware of one's predispositions may allow one to modify them when they are inappropriate in a given conflict. The six dimensions follow.

(a) *Avoiding conflict/excessively involved in conflict.* Conflict avoidance is expressed in denial, repression, suppression, avoidance, and continuing postponement of facing the conflict. Sometimes it is evidenced in premature conflict resolution,

fleeing into an agreement before there is adequate exploration of the conflicting interests and the various options for resolving the conflict. Usually, the conflict that is avoided does not go away; rather, the tension associated with it is expressed in fatigue, irritability, muscular tension, and a sense of malaise. Excessive involvement in conflict is sometimes expressed in a "macho" attitude, a chip on one's shoulder, a tendency to seek out conflict to demonstrate that one is not afraid of conflict. It is also commonly expressed in a preoccupation with conflict -obsessive thoughts about fights, disputes, and quarrels, with much rehearsing of moves and counter moves between oneself and one's adversaries. Presumably, a healthy predisposition involves the readiness to confront conflict when it arises without needing to seek it out or to be preoccupied with it.

(b) *Hard/soft.* Some people are prone to take a tough, aggressive, dominating, unyielding response to conflict, fearing that otherwise they will be taken advantage of and be considered soft. Others are afraid that they will be considered mean, hostile, or presumptuous, and as a consequence, they are excessively gentle and unassertive. They often expect the other to read their minds and know what they want even though they are not open in expressing their interests. A more appropriate stance is a firm support of one's own interests combined with a ready responsiveness to the interests of the other.

(c) *Rigid/loose.* Some people immediately seek to organize and control the situation by setting the agenda and defining the rules. They feel anxious if things threaten to get out of control and feel threatened by the unexpected. As a consequence, they are apt to push for rigid arrangements and rules and get upset by even minor deviations. At the other extreme, there are some people who are aversive to anything that seems formal, limiting, conditional, or constricting. They prefer a loose, improvisational, informal arrangement in which rules and procedures are implicit rather than overt. An approach that allows for both

orderliness and flexibility in dealing with the conflict seems more constructive than one that is compulsive either in its organizing or in its rejection of orderliness.

(d) *Intellectual/emotional.* At one extreme, emotion is repressed, controlled, or isolated so that no relevant emotion is felt or expressed as one communicates one's thoughts. The appearance is of someone who is calm, rational, and detached. Frequently, beneath the calm surface is the fear that if one feels or expresses one's emotions, they will get out of control and one will do something destructive, foolish, or humiliating. However, the lack of appropriate emotional expressiveness may seriously impair communication. The other may take your lack of emotion as an indicator that you have no real commitment to your interests and that you lack genuine concern for the other's interests. At the other extreme, there are some people who believe that only feelings are real and that words and ideas are not to be taken seriously unless they are thoroughly soaked in emotion. The emotional intensity of such people also interferes with communication. It impairs the ability to explore ideas mutually and to develop creative solutions to impasses; it also makes it difficult to differentiate the significant from the insignificant, if even the trivial is accompanied with intense emotion. The ideal mode of communication combines thought and affect: The thought is supported by the affect, and the affect is explained by the thought.

(e) *Escalating/minimizing.* At one extreme, there are people who tend to experience any given conflict in the largest possible terms. The issues are cast so that what is at stake involves one's self, one's family, one's ethnic group, precedence for all time, or the like. The specifics of the conflict get lost as it escalates along the various dimensions of conflict: the size and number of the immediate issues involved; the number of motives and participants implicated on each side of the issue; the size and number of the principles and precedents that are perceived to be at stake;

the cost that the participants are willing to bear in relation to the conflict; the number of norms of moral conduct from which behavior toward the other side is exempted; and the intensity of negative attitudes toward the other side. Escalation of the conflict makes the conflict more difficult to resolve constructively except when the escalation proceeds so rapidly that its absurdity becomes even self-apparent. At the other extreme, there are people who tend to minimize their conflicts. They are similar to the conflict avoiders but, unlike the avoiders, they do recognize the existence of the conflict. However, by minimizing the seriousness of the differences between self and other and by not recognizing how important the matter is to self and to the other, one can produce serious misunderstandings. One may also restrict the effort needed to resolve the conflict constructively.

(f) *Compulsively revealing/compulsively concealing.* At one extreme, there are people who feel a compulsion to reveal whatever they think and feel about the other, including their suspicions, hostilities, and fears, in the most blunt, unrationalized, and unmodulated manner. They may feel they have to communicate every doubt, sense of inadequacy, or weakness they have about themselves. At the other extreme, there are people who feel that they cannot reveal any of their feelings or thoughts without seriously damaging their relationship to the other. Either extreme can impair the development of a constructive relationship. One, in effect, should be open and honest in communication but realistically take into account the consequences of what one says or does not say and the current state of the relationship.

13. Finally, throughout conflict, you should remain a moral person who is caring and just and should consider the other as a member of your moral community, entitled to care and justice. In the heat of conflict, there is often the tendency to shrink one's moral community and to exclude the other from it: This permits

behavior toward the other that one would otherwise consider morally reprehensible. Such behavior escalates conflict and turns it in the direction of violence and destruction.

The foregoing elements could provide the basis for many different types of courses and workshops in conflict resolution in schools. My limited experience with such training suggests that, by itself, a simple course or workshop is not usually sufficient to produce lasting effects. Students must have repeated opportunities to practice their skills of constructive conflict resolution in a supportive atmosphere. The use of constructive controversy in teaching could provide such an atmosphere.

The Use of Constructive Controversy in Teaching Subject Matters

David Johnson and Roger Johnson (1987, 1992) of the University of Minnesota have suggested that teachers, no matter what subjects they teach, can stimulate and structure constructive controversy in the classroom that will promote academic learning and the development of conflict resolution skills. A cooperative context is established for a controversy, for example, by assigning students to groups of four, dividing each group into two pairs who are assigned positions on the topics to be discussed, and requiring each group to reach a consensus on the issue and turn in a group report on which all members will be evaluated. There are five phases involved in the structured controversy. First, the paired students learn their respective positions: then each pair presents its position. Next, there is an open discussion in which students argue strongly and persuasively for their positions. After this, there is a perspective reversal, in which each pair presents the opposing pair's position as sincerely and persuasively as it can. In the last phase, they drop their advocacy of their assigned positions and seek to reach consensus on a position that is supported by the evidence. In this phase, they write a joint statement with the rationale and supporting evidence for the synthesis their group has agreed on.

The discussion rules that the students are instructed to following during the controversy are (a) be critical of ideas, not people; (b) focus on making the best possible decision, not on winning; (c) encourage everyone to participate; (d) listen to everyone's ideas, even if you do not agree; (e) restate what someone has said if it is not clear; (f) bring out the ideas and facts supporting both sides and then try to put them together in a way that makes sense; (g) try to understand both sides of the issue; and (h) change your mind if the evidence clearly indicates that you should do so.

After the structured controversy, there is group processing and highlighting of the specific skills required for constructive controversy. There is good reason to believe that such structured controversy not only would make the classroom more interesting but would also promote the development of perspective taking, critical thinking, and other skills involved in constructive conflict resolution. However, as yet there has been little systematic research on structured controversy.

Mediation in the Schools

There are difficult conflicts that the disputing parties may not be able to resolve constructively without the help of third parties acting as mediators. In schools, such conflicts can occur between students, between students and teachers, between parents and teachers, and between teachers and administrators. To deal with such conflicts, mediation programs have been established in a number of schools. These programs vary, but typically students and teachers are given about 20 to 30 hours of training in the principles of constructive conflict resolution and specific training in how to serve as mediators. They are usually given a set of rules to apply during the mediation process. Students as young as 10 years old as well as high school and college students have been trained. Little systematic research on the effects of such programs has been done, but there is considerable anecdotal evidence to suggest that many student mediators have benefited

enormously and that incidents of school violence have decreased.

In selecting to emphasize cooperative learning, conflict resolution, structured controversy, and school mediation as the core of any comprehensive program for a peaceful world, I have been guided by the view that students need to have continuing experiences of constructive conflict resolution as they learn different subjects, as well as an immersion in a school environment that provides daily experiences (and a model) of cooperative relations and of constructive resolution of conflicts. This pervasive and extended experience, combined with tuition in the concepts and principles of cooperative work and of conflict resolution, should enable the students to develop generalizable attitudes and skills strong enough to resist the countervailing influences that are so prevalent in their nonschool environments. It is my hope that, by the time they become adults, they would have developed the attitudes, knowledge, and skills that would enable them to cooperate with others in resolving constructively the inevitable conflicts that will occur among and within nations, ethnic groups, communities, and families.

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VOLUNTARY STUDENT TRANSFER IN METROPOLITAN KANSAS CITY

Cross-District Research and Discovery: Sample Units and Projected Units

Multi-District Discovery Units

"Cooperative learning" is a crucial feature of the Voluntary Student Transfer project, a feature made possible as both distance learning and face-to-face learning by the universal use of electronic technology. Fundamental to it will be a new kind of educational literature and teaching approach: "Cross-District Research and Discovery Units."

These teaching/learning tools are like an old-style curriculum, providing structure and strategy for learning to unfold. They are also unique. The learning they facilitate will unite young scholar communities, across distances, in common inquiry, reflection and conclusion. Because this plan supports intermittant [sic] meetings in non-threatening environments with mentors and distant teammates, this way of learning will have prepared them to work seamlessly together on those occasions.

Section 1: Cross-District Discovery Unit Examples

To make full use of so many available electronic resources, and to support learner-centered education, these open-ended materials are organized around themes. In your preview material is a complete discovery unit sample, "A Dream of a Team", which, though extensive, only develops one part of the numerous possibilities of the theme TEAM.

In this case, TEAM is presented as a science-emphasis cluster around hypothesis testing, with features of computation, poetry, history, geography and current events. There could easily be literature and arts applications, as well as many others, all this

with the TEAM concept narrowly defined as "sports" and even more narrowly defined as "baseball." What are the possibilities for learning if the TEAM is from NASA, the TEAM is a family or the TEAM is a government entity? Thematic learning is limitless, layered for topic, depth and complexity. This is the reason it suits the new education so well.

A second example appears in your review materials from the Olin Environmental Project. Here, a manufacturer has funded creation of cross-district explorations by a cadre of teachers under the guidance of PEI, using Olin chemical engineers as mentor personnel. Already completed, with more being added, this shows a different application of discovery unit learning around the theme WATER.

Section 2: Projected Cross-District Discovery Units

Several projects are currently contributing new Cross District Discovery Units to the ShareNet "stable." Examples of current projects making contributions similar to the Olin materials include: The National Fish and Wildlife Agency project, the Jackson County Anti-Drug Tax project (developing prevention materials for access by the twelve county school districts and all other system users, which are ready to be incorporated into the "discovery format"), and the Oncology project with Independence Regional Health Center, providing cancer prevention lessons which can also be easily incorporated into discovery.

Further, PEI staff continually generate new theme possibilities, then seek a funding "home" for them so that they can become available for use in projects such as Voluntary Student Transfer. This section lists a few of those incipient cross-district discovery units.

Section 3: Statistical Data from ShareNet

Also included in these Cross-District "Research and Discovery" preview materials are samples of statistical information of the

type freely available from the ShareNet Telecommunications System. From these information bases students can develop specifics to inform their conclusions about, for example, the need for mass transit in the city (in Discovery Unit "People Moving") or the availability of affordable housing (in Discovery Unit "Shelter")

Studies under Consideration

Classroom Activities being considered for the Voluntary Desegration [sic] Classrooms —

Cultural Diversity

BALANCING UNIT AND DIVERSITY

Our study of cultural diversity begins with ourselves and our families. Some of us may feel that "we" are just plain Americans and that we have no distinct heritage. This suit explores how all of us have been influenced by beliefs, customs, and expectations which come from national, racial, or religious groups. Culture and ethnicity influence our language, food, society, and family relationships. Even those of us who do not identify with an ethnic background, are part of the American heritage that has been shaped and influenced by Native Americans and immigrants from diverse cultures.

Study Questions:

What is meant by "unity" with respect to humanity? What is meant by "diversity" with respect to humanity?

What factors tend to separate humans into different groups and therefore reveal our diversity?

What factors tend to bring humans together for common purposes and therefore reveal our unity?

What are some possible advantages of cultural and physical diversity in human populations? What are some possible disadvantages or dangers?

How have immigration patterns and laws affected the changing population mix in the United States?

Discuss the prime example of forced immigration in the United States and how it has affected our history and development?

Activities include:

Ethnic perceptions and Identity modules — Students discuss/ write to what extent they are familiar with their own ethnic history. Students will interview family members generating more information and background. The students will write personal profiles and on ShareNet, publish electronically for peer review. When the identity modules are presented students from the participating classrooms will form "new interdistrict groups". These new groups will note the similarities and differences of their members. Students will write about this activity for a news release.

Solving Human Problems

KNOWLEDGE IS POWER IN PROBLEM-SOLVING

Statistical Information – Missouri County Profiles — Students will use resources, learning to read the census data and apply the information to future studies or metropolitan problem solving activities. Unit themes may include:

1. Feasibility study for a metropolitan mass transit system
2. A study of Metropolitan Water Resources and their community impact —
   Supported by student recommendations based on findings.
3. Applying statistics to community crime related problems. These Show Me Scholars Teams will work collaboratively with their local fire and police to determine
4. Do cultural and leisure resources adequately reflect the racial and ethnic make-up of the area?

Global and Ecological Issues

KIDS CAN MAKE A DIFFERENCE

Some of the "Kids Can Make a Difference" project activities will include:

1. "A World Map-A-Thon" Cross District Activities

   Students will study for a world map-a-thon. In addition to naming countries, they will identify approximate grid coordinates, gross national products and other pertinent information. This activity will be conducted electronically and a point system for correct scores will be established.

2. School Grounds and Surrounding Areas Environmental Clean-Up

   All classes will be assigned a particular area for clean-up duty. The students' goal will be to make area litter-free. As a group they will examine the collections and observe the social influences that they determine to be contributing factors. Students will make policy recommendations for business, personal, and community consideration. Each participating group will exchange information on ShareNet and formulate presentation agendas for their respective communities. These classrooms will share their findings with other school communities on a global scale.

   Mentors on-line:

   - one former member of the Peace Corps
   - environmental engineer
   - waste management representatives
   - environmental resource experts

A film called "Mother Earth is Dying" featuring Bette Midler will be shown during these studies.

A forum devoted to Environmental Problem Solving will be set up.

Adapted From:
CAROL HOCHMAN Boyce Middle School
Upper St. Clair, Pennsylvania

Literature Review

Classes of students will begin with a short story unit using a story called "correspondence". Pen pals is the central theme of the story. This will help students to understand the concept, provide and stimulate ideas for them to begin the "sharing process" electronically. Their first "pen pal" exercise will be to create personal profiles and sent to their respective pals. These will be followed by reading and exchanges on the following works, The Pigman; The Odyssey; Of Mice and Men; Romeo and Juliet.

Cross District Discovery Unit For Voluntary Student Transfer

Title: "A Dream of A Team"

Grade Level: 6

Hypothesis Applications

Background:

1) Students will need to know basic statistical methods for graphing and analysis of data.

2) Lessons designed to introduce the students to these ideas are included in the PROCEDURE section.

3) Other basic lesson titles already on ShareNet and the topics they introduce are:

a) "Test Scores" → Mean, Median, and Mode

b) "Breakfast Cereals" → Range, Quartiles, Interquartile Range, and Outliers

c) "TV Ratings" → Box and Whisker Plots

d) "Ages of Presidents at Their Deaths" → Stem and Leaf Plots

e) "Home Run Leaders" → Back to Back Stem and Leaf Plots

f) "Tall Buildings" → Stem and Leaf Plots where Data Should be Truncated or Rounded

4) A published source for excellent beginning lessons in statistical graphing and data analysis is the Dale Seymour publication, Exploring Data, by Landwehr and Watkin

Outcome: Students will be able to:

- Use the scientific method to test an hypothesis.
- Gather and analyze data to evaluate the hypothesis.
- Make decisions involving money transactions in buying a team and keeping related records.
- Telecommunicate via ShareNet in order to gather data and communicate their findings to other participating schools, and to communicate with a statistical or sports mentor.

Standards Met:

NCTM: 1 - Mathematics as Problem Solving

2 - Mathematics as Communication

3 - Mathematics as Reasoning

4 - Mathematical Connections

7 - Computation and Estimation

10 - Statistics

KMCS: Same as above.

MMAT:

5-A1 - Communicate and interpret numbers.

5-A5 - Represent and describe mathematical relationships.

5-F2 - Construct, read, and interpret displays of data.

5-H1 - Solve problems involving money management.

6-F1 - Construct and interpret graphs and tables.

6-F4 - Find a mean.

7-A1 - Communicate and interpret numbers.

7-A5 - Use numerical relationships to describe and simplify numerical situations.

7-F1 - Systematically collect, organize, and classify data.

7-F2 - Construct, read, and interpret displays of data.

7-F3 - Formulate and solve problems that involve collecting and analyzing data.

8-A1 - Same as 7-A1.

8-A5 - Same as 7-A5.

8-F4 - Same as 7-F3.

8-G4 - Follow a series of instructions in sequential order.

Introduction

Teachers,

Welcome to Share Net's Cross District discovery unit,

"A Dream of a Team"

which is designed to be used by a teacher who has no experience with teaching statistics as well as the statistical veteran.

Using data on approximately 150 baseball cards supplied to you by Pan Ed, your students are going to buy a team, make hypotheses, gather data within their own groups and class, assimilate, graph, and analyze the data, and use the analysis to evaluate their hypotheses.

Then, via Share Net, they will share their findings and data with the other schools involved in the project, compare their own conclusions with those made by students in the other schools, assimilate and organize the large collection of data and use it to analyze their hypotheses again.

Your students will have the opportunity to "buy" players from other schools in an attempt to build a Dream Team - 11 positions, and track the financial activities that are involved. The most complete team(s) will receive a prize on the last day of the exercise. All students will be rewarded for their participation with a special gift the last day of the exercise.

Your students will be computing, communicating both orally and in writing, be involved with technology through telecommunications, and have the opportunity to relate to the world at large by buying a team and by contacting mentors.

Please remember that all questions in the discussions are intended to be guidelines only. Let your creativity reign. Be sure to put all of your related Data on the system for comparative analysis.

Thanks for participating, and may your baseball team buying, statistics, and telecommunications experience be a memorable one for you and your students.

Wishing you success,

Pan Ed and Share Net

Preparation:

- In December, sign up to be a part of the Cross District Discovery Unit through Share Net.
- Download the lessons you need to prepare yourself and/or your students in basic statistical methods.
- Incorporate into your daily plans enough time to prepare your students with Share Net statistical activities or other activities of your choice.
- Download all lessons for the unit and, if needed, other statistics lessons listed in BACKGROUND.
- Acquire from Pan Ed:
    1) your collection of baseball cards,
    2) the list of participating schools with user names which will be posted for the duration of the unit.
    3) An enlarged copy of two baseball cards to be use [sic] the classroom introduction.
    4) Play money.
- Download the evaluation form which is to be kept in mind during the activity, completed afterwards, and returned to Pan Ed (Share Net). The Fax Number is 461-0201.

- Make a transparency of two enlarged baseball cards.
- Time Frame → You will need:
    * Approximately 1 week previous to the Cross District Activities to prepare students for basis statistical graphing and analysis methods if they have had little or no experience with that kind of mathematics.
    * 5 - 6 weeks (2-3 sessions per week) to accomplish the Cross District sharing data activities.

CLASSROOM INTRODUCTION

To be done 1 or 2 days before Block 1 of the sharing data activities unless your students need work on basic statistical graphing and analysis. If your students do need basic work, begin this introduction 5 - 6 class days before starting Block 1.

1) Establish groups and explain the overall activity. (See write up following this introduction and the statement about demonstrating Share Net and Groliers.)
2) Have students discuss within their groups the possibility of acquiring their own baseball team and bring the discussion together for the whole class.

    Ideas: What would be needed?

    Money, Capabilities, Knowledge, Training, Experience

    How could you find out how to get started?

    Read, Library resources, MENTORS.

    How would you find team members?

    Read, attend games, have scouts, know players.

What else would you need?

Coaching staff, playing facilities, business managers.

3) Have students write (possibly at home) a statement about how they will go about acquiring a baseball team of their own and seal it in an envelope. Save these for future use.

4) OPTIONAL AT THIS POINT - Demo SHARE NET and print out Grolier's history of Baseball. Briefly discuss the history. (See the section on notes to the teacher.)

5) Make a chart of teams in each major league which will be passed throughout the coming weeks.

6) Show list of participating schools and have students help you prepare a description of themselves as a group and a welcome statement to be telecommunicated to the other schools and

Mentors.

7) Discuss card information with enlargements displayed on an overhead projector.

   (a) What does each abbreviation mean? (Pitchers, Nonpitchers)

   (b) Which numbers are counted values, computed values?

   (c) Discuss how the computed values are done. (Allow students who are baseball experts to explain this.)

   Do an example BA and ERA

Write the formulas on a chart to be posted in room.

Batting Average	*Earned Run Average
BA = H/AB	*ERA = ER/(TP/9)

Basic Statistical Methods 2

Histogram

1) Have each group sort their players by weight category as listed below, by league, and record the information on their charts. (Keep track of lowest and highest weight among all weights.)

weight is between	number of players Am. L	Nat. L	total
150-159	____	____	____
160-169	____	____	____
170-179	____	____	____
180-189	____	____	____
190-199	____	____	____
200-209	____	____	____
210-219	____	____	____

2) Have a member of each group announce their totals so you can compute a grand total for a board chart that is like their charts.

3) Make a HISTOGRAM (bar graph) using the board chart totals. Use two colors, one for each league. (Make this on large paper - possibly newsprint - to be preserved for room display.) (Students do this also on their templates.)

(Use (max - min)/10 to compute approximate vertical scale for graphing. Use common sense also. Consider: What scale will give an accurate and quick picture of the data? What scale will help make the graph aesthetically pleasant?)

4) Discussion:

   a. If all the bars of one color on the Histogram were stacked on top of each other how high would the graph be? (Ans. a number = the total number of players we have from one league.)

   b. What percent would that tall bar represent? (Ans. 100%) Ask 100% of what?

   c. Then what percent will each of the bars on our histogram represent? How would you compute those? (Ans. each bar height divided by the total number of players and the decimal converted to a percent.)

   d. Have students compute percents and record them on the histogram bars as they are computed. (Students record these on their templates.)

   e. What would all this data look like on a LINE PLOT?

      (Ans. Very much like the histogram but without bars.)

   f. Which kind of graph is best for this much data? (Ans. Histogram. But, discuss the possibility of using a LINE PLOT if someone suggests that as best. Try to show that the LINE PLOT is best for a small amount of data while the HISTOGRAM is o.k. for lots of data because it would take a long time to make all those x's on the Line Plot and the

final product would not be as neat and easy to read as the HISTOGRAM.)

   g. From this plot, can you tell Smallest weight? Largest weight? Why or Why not?

   h. Can you tell anything about MOST of the players? What?

      Can you tell anything about SOME of the players? What?

   i. What titles and explanations do we the graph [sic] to make sure people can tell what it is all about when they read it? Do these titles on the HISTOGRAM.

5) Have each group deal out their cards and each group member convert height to inches for his/her players.

6) Have each person compute average height for his/her players.

7) Assimilate all data in a histogram comparing the total numbers with average height. (Heights along the horizontal axis, numbers on the vertical axis.)

8) Evaluate the graph with a discussion similar to 4) discussion, e - i and include:

   a. Use the histogram to determine the MEDIAN average height. (Half of the data entries on each side of it.)

   b. Average all the individually computed average heights to determine the MEAN height.

   c. Compare MEDIAN and MEAN. If nearly the same discuss why:

(Items in the histogram are very similar, closely grouped, or the outlier, if any, are balanced.) If very (or somewhat) different, discuss why: (Outliers on one end will influence the MEAN but not the MEDIAN.)

9) Conclusions:

   * HISTOGRAMS are good for larger amounts of data (more that (sic)25 items).
   * They show percents easily.
   * They can be read quickly and easily by height.

10) Write: A brief description of what the Histograms say about weight and height. Talk about each graph separately. Keep in mind the ideas we have discussed.

11) OPTION TO SEND: If you wish, another message to the other participating schools.

Basic Statistical Methods 3

STEM AND LEAF PLOT

1) Have groups deal their cards out to their group members.

2) Have each group member sort by league and report the weights on their cards as you (and students on templates) record them on a back-to-back stem and leaf plot. (You might need to explain how to decide the numbers that go in the stem and whether they should be separated by 10 or by 5.)

Sample Plot:

AmericanLeague NationalLeague

100 pounds plus:_____

6 5 9 . 5 5 6 8

9 4 9 0 4 3 1

8 7 6 6 5 . 8 7 9 5 7

2 4 3 0 8 4 3 3

6 5 7 . 9 9 6 7 5 8

0 2 7 4 4 3

9 8 8 5 7 6 8 . 9

2 3 1 0 6 1 0

8 8 5 . 7 8 6

0 5 4 3

3) Rewrite the stem plot so data items will be in order with the smallest value on each leaf near the stem.

4) Discussion:

   a. Which league has the most number of players weighing more than 170 pounds? How did you decide that?
   b. Which league has the lightest player? How can you tell? The heaviest? How again?
   c. Which weight division has the most number of players who weigh the same amount? How did you decide?

d. For each league, half of the players weigh above what weight? How can you tell?

e. What is the median weight for each league? What is the Mean weight? (average) What is the range of the weights?

f. How are the two leagues alike or different by weight? Why do you think so?

g. Are there any outliers or gaps? How can you tell?

h. How is this graph useful in comparison to the Histogram and Line Plot?

(Good for a larger set of data than one would use on a Line Plot. Shows actual weights for individuals rather that [sic] at total like the Histogram.)

i. Is either set of data symmetrical (balanced around central point)?

j. Does either set of data have any other noticeable shape? (Centered? Heavy at one or both ends? Very uneven, One mound, Two mounds, J shaped, U shaped, Rectangular? etc.) What do you think is the reason for this?

k. Special entries on a Stem and Leaf can be labeled along the side and indicated with arrows. Read the back of some of your cards and tell me something REALLY SPECIAL about one of your players. We will indicate that beside his weight.

5) Conclusion: Ask for student generalizations, but infuse as many of the following as you can:

The Stem and Leaf Plot delivers more information than the Line Plot or the Histogram.

Good for more than 25 data items.

Quick way to organize and display data.

Makes it easy to identify:

largest and smallest values

outliers

clusters

gaps

shape of the distribution

relative position of important values

6) Write: a brief comparison of the two leagues according to the information the Stem and Leaf Plot gives you. (Keep in mind the ideas we have discussed.

SCATTER PLOT

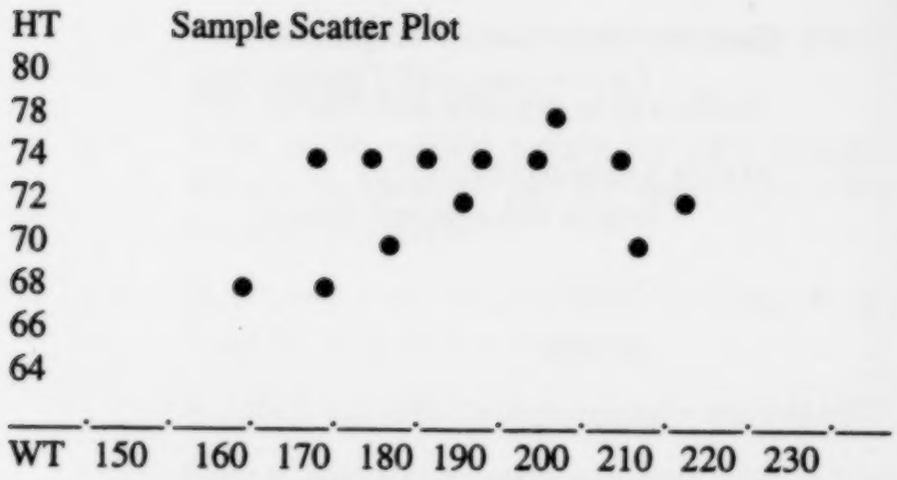
1) Have students convert each height on their cards to inches.

2) Have students make a chart listing weight and height for each player in their group.

3) Use (Maximum - Minimum)/10 - approximate - to determine graphing scales.

4) Using one group's data as an example, make a scatter plot of the data points while each group does their own graph.

Note: A letter to represent either the American or National leagues could be used on the graph in place of each dot.



5) Questions:

a. Which height goes with the heaviest weight? Lightest weight?

b. Which weight goes with the greatest height? Smallest height?

c. Is the heaviest person also the tallest? The lightest person the shortest? Would you expect the values to match that way? Why? or Why not?

d. Is there a positive correlation? (The points making an upward trend to the right.) A negative correlation? (The points making a downward trend to the right.) No correlation? What do you think causes it?

e. Are there any points that do not follow the general pattern (when there is a general pattern)?

f. Are there any noticeable clusters of points? What would cause them to happen?

g. Are there any points noticeably higher or lower than most? What would cause that to happen?

h. Try to fit a line through the points that is [sic] close to as many points as possible and splits all the points in half (as many on one side of the line as are on the other side).

i. Use this line to predict the expected height of a player that weighs 165 lbs (or some number of pounds you select that is nor [sic] currently plotted on the graph).

j. Convert your own height to inches. Do you fit on this "best fit" line? Why or Why not?

k. How would it work to put this data in a LinePlot, Histogram, Stem and Leaf plot?
(they are all ONE-VARIABLE graphing methods. They could be used to show HOW MANY players are a certain weight or height or how many are within an interval.)

6) Conclusion: Honor all student input, but try to include as much of the following as possible.

* Scatter plots are a good method for graphing data consisting of two numbers for each entry.
* It is a TWO-VARIABLE graphing method.
* Lowest and highest values are quickly accessible.
* Trends (or NONE) are noticeable.
* A general trend allows one to fit a line to he [sic] data.
* Predictions can be made using the fitted line.
* Comparisons can be made by using letters instead of dots.

7) Write: A brief description of what the graphs says to compare weights with heights. Keep in mind the ideas we have discussed.

Block 1 - Lesson 1

(Note to the teacher: There is lots to do here. Decide early how many days you will need.)

1) Retrieve:

→ Data: From each school:

Total number of Boys and Girls in the class.

Total number of Boys and Girls who collect baseball cards.

→ Messages from other schools.

→ Replies from mentors.

Distribute messages to various class members and ask them to read them to the class.

2) Establish groups which will be maintained for each lesson in this continued project.

3) Use the retrieved data on Boys and Girls to make Line Plot showing the number reported by each school including your own. Instead of an x, use a G for girls and B for boys. List the data from each school on the board.

Sample Plot

```
                B G   B   G
G     G         G B B B G B B
-------------------------------------------------
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19
```


a) Compute the Mean number of Students who collect cards.

b) Determine the Median number of students (Boys) (Girls) who collect cards.

c) What does the graph tell us about the number of students who collect cards?

d) Questions and discussion similar to Classroom Introduction #6, c.

4) Explain the additional material you will be telecommunicating.

"**You will send BUY REQUESTS to the first 3 schools named after you in the list of participating schools. For each succeeding block of lessons, you will move ahead 3 more schools in the list, continuing to cycle through the lit until you return to your own name."

"**You may send MESSAGES by individual, group, or class to all or some schools."

5) Explain templates and charts for keeping records.

6) Distribute baseball cards and 4 envelopes per group for sorting: Am League, pitchers, non pitchers Nat Leagues, pitchers, non pitchers.

7) Have groups deal out their cards so each member has the same number (being one short or long will not matter).

8) Have each student use the averaging formulas to verify the total BA or ERA for each of their cards. (CALCULATORS) The ERA formula will not yield the exact decimal that is on the card, but, it should be close.

9) Ask each group to collaborate in making a chart of the total number of players they have for each Baseball Game POSITION for EACH LEAGUE.

10) On a large chart, bring together all of their totals in order to compute grand totals for each POSITION within EACH LEAGUE.

11) Explain that this is the data we will send to all the other schools and will receive from each of them their totals.

12) Have each group decide on the Dream Team they wish to "ACQUIRE" during the weeks of this project. The price of a player is $1000 the first week. The price goes up $100 per week for the remaining weeks.

13) OPTION: Make suggestios for the students to consider in acquiring a team or let them make strategies [sic] of their own. Keep in mind the advantage of:

    a. having no duplicate choices in the room.

    b. noticing Buy Requests as they come in and using that information to decide during the next lesson if you want to stay with your choice. (No changes thereafter.)

    c. choosing a team for which you already have several players.

14) Have each group decide what its first BUY REQUESTS will be. (From each group, send 1 request to each of the 3 next schools on the list — total = numbers of groups x 3.)

15) Distribute $10,000, ENVELOPES, and BUY REQUEST FORMS to each group and have groups fill out the forms, attach the needed $1000-$3000, put them in the envelope, and turn them in.

16) Get student input to determine what question, if any, should go to the Mentor, and what messages should be sent to the other schools. 16) SEND: → Data - Classroom totals for positions for each league.
    → Buy Requests - numbered in order of submission.
    → Questions for Mentors.
    → Messages.

Block 1 - Lesson 2

1) Retrieve:
    → Data - Classroom totals for each league.
    → Buy requests from other schools.
    → Mentor replies.
    → Messages

2) Distribute other schools' data to your groups so they can report it to you for display.

3) Make a large chart on NEWSPRINT showing position names across the top and school names down the side (include your own school). Ask groups for the totals from other schools, enter them in the chart and have students total each position and write the totals on the chart. Preserve this for long term display. (Numbers will change as Buy Requests are fulfilled.)

4) Discussion:

    1. Which position has the least number of players? Which position shows the most number of players? Is that comparison really true in baseball teams that you know about? Why? or Why not?

2. Which school has the most players in the positions you need? Will that help you decide what to request from a particular school?

3. Explain that the chart of schools and positions will be updated each time we complete buys so we will have a little knowledge about what the other schools have available.

OPTION: Go to number 9 if you are short on time.

5) Use the totals to compute percent of all players there are in each position.

6) Make a histogram comparing position with percent.

7) Discussion: (Honor all reasonable input. Attempt to "air" as much about baseball in general as possible. Encourage all to participate.)

1. Which gives us the most immediate information, the Histogram or the chart? Why?

2. Are you wishing you had more information? Why? or Why not?

3. Would it have been better to graph this data some other way? How? and Why?

4. What specific information can you get from each display?

8) Write: A brief description of what information the Histogram gives us. Keep in mind the ideas we discussed.

9) Announce Buy Requests from other schools. Give single requests, with money attached, to the group that has the team and position requested. Have that group

fill out a Verification Form, update their Balance Sheets, and update the big chart of positions available.

10) Distribute messages and have students write replies.

11) Determine what questions will go to Mentors and what messages will go to schools.

12) SEND
- → Verification of other schools' Buys.
- → Questions to Mentors.
- → Messages.

Block 2 - Lesson 1 Hypothesis Testing

1) Retrieve
- → Verification of your own Buys.
- → Replies from Mentors.
- → Messages.

2) Have students take out only the non-pitcher cards for each league. (Leagues can be mixed for this activity.)

3) Ask students to discuss their players with their group members in light of the hypothesis:

"Heavier players get more hits per year."

4) Each group must decide to agree or disagree with the hypothesis and make a record of their decision on their templates.

5) Each group will compute the average number of hits per year for each player they have a card for and record this information in a chart.

6) Ascertain the lowest and highest computation by asking groups and keeping lowest/highest recorded [sic]

on board. Use this to compute approximate scale for graph. (Horizontal scale approximately 150 through 210 pounds - 5 or 10 pound intervals. Vertical scale zero through maximum number of hits - 2 hit intervals.

7) Gather all computed data from groups and make a chart on newsprint for all to see.

8) Have half the room make a scatter plot on their templates, the other half make a histogram. Both will use the data gathered in #7. One group in each half will make a copy of their graph on a transparent sheet.

9) Display both graphs and discuss their usefulness.

10) Discussion:

   a. What is the largest number of hits?

   b. How heavy is the player who achieved that?

   c. Is this the heaviest player?

   d. Which graph is more meaningful to you?

   e. Does the Scatter Plot have a pattern to it? Explain.

   f. Does either graph support or negate theoriginal [sic] hypothesis?

   g. Were we right or wrong? Is there a "correct" answer?

   h. Does the scatter plot have a steady change? rising, falling, staying the same? Are there any clustered points? What would cause that? Are there any outliers? Why? What would cause them to be there. [sic]

   i. If you were hiring baseball players for a team, would you compare weights? Why or Why not? What characteristics would you look for? Why?

   j. Write: "My group decided the original hypothesis was (correct, incorrect) because . . .

   After studying the graphs, I think we (were right, were wrong) because . . ."

11) Collect from each group: (largest average number of hits, weight)

12) Have each group decide what position(s) and for whatteam [sic] they want to make a "buy". Have them fill out BuyRequest [sic] Forms to be turned in.

13) Update charts and Balance Sheets

14) Determine Mentor Questions and Messages to be sent.

15) SEND
   → Data: from number 11 (a pair of numbers from each group in the class)
   → Buy Requests: from number 12.
   → Questions to Mentors.
   → Messages.

Block 2 - Lesson 2

Hypothesis testing with a larger collection of data.

1) Retrieve
   → Data - Largest average number of hits, weight.
   → Buy requests.
   → Messages.

2) Do class graphs (scatter plot and histogram again) on retrieved data: Largest number of hits vs weight.

3) Discussion:

   a. Are the plots similar to or different than the ones done with just our own data? In what way are they (similar, different)? Why?

   b. Do we have more or less information now? Why do you think so?

   c. What would you decide about our original hypothesis by looking at these graphs? Why?

   d. What factors affect the NUMBER of hits a baseball player gets? How do you know this? How does that affect the average?

   e. Why did we not keep the pitchers in our analysis? Should we have kept them in the analysis? Why or Why not?

   f. If we did keep the pitchers in, how would the data display be different than it is now? Explain why.

   g. Do you think there would be any relationship between height and number of hits? How could you find out?

   h. Write: Briefly explain whether or not the new data made a difference in our deciding if the hypothesis was correct.

4) Announce Buy Requests. If there are matches (by team name and position played) have groups fill out a Verification Form to O.K. the Buy and Price and record the sale on their Balance Sheets. (If more than one group has a match, one can offer a lower price, or

they could flip a coin to decide who sells.) Update the totals chart.

5) Have groups up-date their Team Record and Balance Sheets.

6) Determine questions for Mentors and Messages.

7) SEND
   → Verification of other schools' Buys.
   → Questions to Mentors.
   → Messages.

Block 3 - Lesson 1

1) Retrieve
   → Verification of your own Buys.
   → Mentor replies.
   → Messages.

2) Have groups look at their cards and compare player positions with number of hits per year. (Number of hits per year will have to be computed for pitchers.)

3) Each group will decide which position they think should be stated in the hypothesis:

   Hypothesis: _____ (position) _____ players get the most hits per year. [sic] and record the hypothesis on their templates.

4) Each group will deal their cards into two piles, form partnerships in the group, and each pair of partners will record data from their cards.

11 Positions number of hits per year TOTALS Average

RP
P
C
1B
2B
3B
SS
RF
LF
CF

(This could be done for each league separately if you prefer.)

5) Make a large chart on newsprint that is like the chart students have made and record classroom totals on it.

6) Discussion: (Encourage and respect student input.)

   a. Are there any surprising totals? What? Why? Do we have the same number of players in each position? Is this a "fair" comparison of data? Why? Will data from the other schools increase or decrease the validity of our comparison? Why?

   b. Are there very small or very large totals that you expected? What? Why?

   c. To compare these in a graph, should we use totals? Averages? Why? Why not?

   d. If we are going to graph this, what type of graph should we use? Why?

   e. Make a large Histogram on newsprint using totals from 4. Students do the same on * * *

7) Have each group decide on Buy requests, turn in forms, and up-date their Team Records and Balance sheets.

8) Determine Mentor Questions and Messages.

9) SEND
   - → Data - Position and Total hits.
   - → Questions to Mentors.
   - → Buy requests.
   - → Messages.

Block 3 - Lesson 2

Hypothesis testing with more data

1) Retrieve
   - → Data - Position and Total hits.
   - → Buy requests.
   - → Messages.
   - → Mentor replies.

2) Distribute retrieved data on Position and Total Hits to groups. Have them announce totals for each position while you (or a student helper) writes them in a chart on newsprint.

3) Have groups make a Histogram to display the data. You make a newsprint model also.

4) Discussion:

   a. Compare this Histogram to the class Histogram from Block 3 - Lesson 1.

b. What are the differences? What caused the differences? What are the similarities? Why would they stay similar?

c. Are there some positions we should have left out? Should the data be separated by league? Why or Why not?

d. Is this the best way to compare hits? Why or why not?

e. How else could we compare hits?

f. What would be the best way to compare hits? Why?

5) Write: A brief description of the best way to compare hits for many players and the most interesting way to compare hits for a few players. Talk it over with your group members first.

6) Have students prepare verification forms and update their Balance Sheets? Circulate to check on accurate recordkeeping and discus progress (or lack of it) in building a complete team. Suggest that keeping track of what position they have asked for from a particular school will help them decide what to ask for next.

7) Determine questions for Mentors and Messages.

8) Send
   - → Verification of other schools' Buy requests.
   - → Messages.
   - → Questions to Mentors.

Block 4 - Lesson 1

Hypothesis Testing

1) Retrieve
   - → Verification of your Buy requests.
   - → Messages.
   - → Mentor replies.

2) Have groups look over cards and decide how they will complete the hypothesis.

   HYPOTHESIS: Most baseball players come from _____.

   Choices: West, Central, South, Northeast

   or N. West, S. West, W. Central, E. Central [sic] S. Central, N. East, S. East.

3) Have each group put a circle sticker on the state each of their players is from and transfer that information to a large map at the front of the room. Before putting a sticker on, write the abbreviation for the players [sic] position on it. Note: At this time your students might be interested in hypothesizing relationships other that [sic] the one proposed. A record of these could be kept and discussed after all data has been processed.

4) Count totals by region and record them on a chart (students do so also on template.)

5) Discussion:

   a. Which state produced the most players?

   b. What might be some reasons for that?
      Population
      Age of state

Length of time baseball has been played there

Ongoing interest in baseball

Type of economy (time to support baseball)

Influence generated by the number of known teams in the area.

Etc.???

c. Use the larger regions, W, C, S, and N.E. What % of the players are from each region? Compute percents and record them on the template.

d. Besides a Histogram, percents can be displayed by using a circle graph. Have students compute the angle size needed to display these percents in a circle graph. Make the circle graph carefully using a protractor.

* * *

f. How else could we display this data graphically? (Try to use a graph other than the Histogram which has already been used a couple of times.)

g. Could we use a modified line plot? Let's try one but with Regions rather than numbers on the horizontal axis.

(Each x will represent some multiple otherwise there will be too many x's to use this type of graph.)

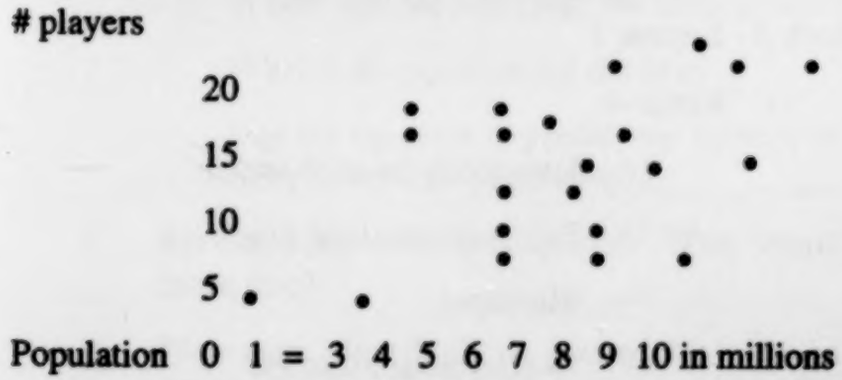
	x					
	x				x	
x	x	x		x	x	
x	x	x	x	x	x	x
x	x	x	x	x	x	x
N.W.	S.W.	N.W.C.	S.C.	N.E.C.	N.E.	S.E.

h. What advantages (disadvantages) does this graph have in comparison to the others we have made?

6) Have students look up population by region, record the total outside the border of each region on the map.

7) Have students compute total population by region, record the total outside the border of each region on the map.

8) Use population totals and player totals for each region to make a scatter plot. (computer approximate graphing [illegible] according to data gathered) There will be 7 pairs of numbers from each group.



9) Discussion:

   a. Which method better displays the relationship of players to region? Why?

   b. Are there any clusters of points? What would cause that?

   c. Is there a general pattern noticeable? Why would that happen. If there is a general pattern, are there any points that do not follow that pattern. What would cause that to happen.

   d. Would it be helpful to have more data? Why?

10) Have students up-date their Team Records and Balance Sheets, and each group decide on Buy Requests.

11) Determine Questions for mentors, and Messages to besent [sic].

12) Send

   → Data totals for each region.

   → Buy requests for team members.

   → Messages.

   → Questions to Mentors.

Block 4 - Lesson 2

1) Retrieve

   → Data totals for each region.

   → Buy requests (Last time!)

   → Messages.

   → Replies from Mentors.

2) Have students use all data to make a scatter plot similar to the plot made the previous day.

   Note: If students ask why we don't connect the dots, explain that is not done unless a comparison is being made according to time (years, days, months, ages [sic] etc.) in order to show a trend over a certain period of time.

3) Discussion:

   a. Do the points follow any general pattern? What would cause it?

   b. Could a "best fit" line be placed somewhat through thE [sic] "middle" of the data? (Make a slanted line close to as many points as possible with half the data on each side of the line.)

   c. Use this line to predict the number of ball players we could expect from a population of _____ (your number choice).

   d. What is the slope of the line? (rise/run)

   e. These questions are for students who know some Algebra.

      - Where will the line cross the vertical axis?

      - What is the equation for the line?

      - Use the equation to predict the number of ball players if the population is _____.

   f. Are there any clusters of points? What would cause that?

   g. Were there some duplicate data entries to put on the graph? How could we show that. (Ans. Put a number instead of a dot on the graph.)

4) Write: First discuss this with your partner and then, write a brief explanation of what the data says about population compared to number of players.

5) Write a brief statement of your initial hypothesis and whether it has been validated or negated. Be sure to explain why.

6) Have students prepare verification forms and update their records.

7) Determine questions for Mentors and Messages.

8) Send
   - → Verifications of other schools' Buy Requests.
   - → Messages.
   - → Questions to Mentors.

Block 5 - Lesson 1

Hypothesis testing

1) Retrieve
   - → Verification of your Buy Requests (Last time!).
   - → Messages.
   - → Replies from Mentors.

2) Ask groups to examine their cards and have each class member predict the following hypothesis related to his/her own birthday.

   Hypothesis: (Number) baseball players were the [sic] born in the same month as I.

3) Each class member will write his/her name on a birthday sticker and glue it to the calendar on his/her birthday.

4) Have groups total the number of players they have who were born in each month of the year and make a chart of that information.

5) Ask each group for their totals per month as you (or a student) make a chalkboard chart of grand totals for the class.

6) Have each class member make a Histogram of the totals as you make the same histogram on newsprint. Then ask each person to use his/her favorite color to highlight the bar that represents his/her birth month.

7) Each group will deal out their cards. Each group member will put an X on the calendar date for each of the players they have.

8) Discussion:

   a. Which month has the most birthdays? Least? Is that easy to tell from the calendar X's?

   b. What percent of all the players have a birthday in January? March? July?

   c. Do any months have the same number of player birthdays?

   d. Does any month have no player birthdays?

   e. Is there an overall pattern to the graph? Why or why not? Would you expect to see a pattern if we had more ball player birthdays? Why or Why not?

f. Who, in the class, shares a birthday month with more than 10 players? Less than 10 but more than 5? Less than 5 but more than 1? Less than 1???

g. What is the mean number of birthdays per month.

h. What is the median number of birthdays per month. Is that value visible from the graph? What kind of graph would make the median easily visible?

i. Could we have used a different kind of graph for this information? Which kind would you recommend? Why?

j. How close was your hypothesis to our actual count?

k. Make a similar hypothesis about the total data we will get from the other schools (plus our own). Remember there will be an approximate total of _____ baseball players to consider.

9) Write: A brief statement describing what the graph tells us about player birthdays. Keep in mind the ideas we have discussed.

10) Have groups up-date their Team Record and Balance Sheet.

11) Determine questions to Mentors and Messages.

12) Send
- → Data Totals on birthdays per month.
- → Messages.
- → Questions to Mentors.

Block 5 - Lesson 2

Hypothesis Testing with more data.

1) Retrieve
- → Data Totals on birthdays per month.
- → Messages
- → Replies from Mentors.

2) Distribute data totals from different schools to your groups and ask them to announce totals so you can consolidate all data into grand totals for graphing.

3) Have each student make a Histogram showing the totals as you (or a student) make(s) the same Histogram on newsprint. Ask each person to color in his/her birth month bar.

4) Discussion:

a. Is this histogram like or not like the one we did with our own data? What details are different? Why?

b. Use the suggestions for discussion (1 - 10) from Block 5 - Lesson 1.

5) Compute percent of player birthdays per month and make a circle graph using the percents?

6) Compute percent of classroom birthdays per month.

7) Make a back to back stem and leaf plot comparing class percents with player percents.

8) Discuss similarities and dissimilarities and reasons.

9) Use birthdays for Royals team members to make a reminder calendar for sending birthday cards. (The calendars and cards can be computer generated.)

10) Update Team Record and Balance sheets.

11) Distribute prizes for completed teams (or most near completion) AND highest money balance.

12) Ask your Royals person to autograph and distribute baseballs to all participants.

13) Send → Farewell and thank you to each schools' students and teachers and to Mentors.

Follow-up

1) Ask students to recall what they wrote the first day about how they would acquire a baseball team.

2) Ask if they think they would write them differently now.

3) Distribute the saved writings to their owners and invite them to share them with the class.

4) Have students re-write their initial statements in light of what they have learned.

5) Select 1 or 2 finished statements to telecommunicate to the other schools.

6) Retrieve the statements sent by other schools and share them with your students.

7) Celebrate in some way, all the birthdays.

Extensions and Adaptions:

1) Relate all data to current data in the Newspaper if this unit occurs during baseball season.

2) Use your baseball cards throughout the school year for basic computational activities.

3) Use the birthday information or geographic information to spur writing activities - use a word processor.

4) Make a data base using the data on your cards. Make a data base on birthdays and birth places - players and students or one for each.

5) Make a spread sheet to compute BA and ERA.

6) Use existing newspaper stats to generate statistics activities.

7) Keep in touch with your Mentors.

Credits: Developed for Pan Ed by Donna Bullock, 9/1991.
Lesson development based on general instructions in
"Exploring Data" by James M. Landwehr and [illegible].

Olin Environmental Project

This section includes hard copy of materials in the current water treatment interactive learning package:

1. "StarDate 2210 '...And Not a Drop to Drink'"

This is an interactive narrative built on the Star Trek theme familiar to most children of this age. It is the teaching framework which presents subject content to the student and positions the various classroom experiences to act as illustrations.

Because of the benefits of electronic presentation, the student may read the teaching story from the screen or print it as hard copy; may respond to text questions and then check answers filed at the "Ask Captain Olin" feature; may generate their own questions and expect an answer from Olin personnel within twenty four hours; or may take on the final project with an assigned Olin staff member providing distant mentoring through the telecommunication system.

Note: If the project continues, lessons in each of the other three areas will be developed around subsequent installments of the "StarDate 2220" Interactive Narrative.

2. *Narrative Integrated Lessons*

   Lesson 1: "The Case of The Wasteful Water Fountain"

   Lesson 2: "Dirty Water Comes Clean"

   Lesson 3: "Contamination: It CAN Be One In A Million" and,

   Lesson 4: "Safe Water: What You See is NOT What You Get."

3. *Teacher Plan for Water Analysis Spring Project*

Interactive Narrative: StarDate 2220

"... And Not A Drop To Drink"

Water

These are the voyages of the Starship Destiny. Our mission is to seek out truth, protect planet earth and boldly go where few have gone before, but ALL must now follow . . .

Ship's Crew

Captain - Ben J. Olin

First Officer - Lisa Waters

Science Officer - Tom Silver

Environmental Officer - John Green

Navigator - Nancy Knight

Engineer - Lee Sun

Ship's Doctor - Aleeta Crystal

Captain's Log:

Our STARSHIP DESTINY has been damaged in a meteor shower. We are on impulse power, and most of our survival equipment has been destroyed. Sensors have found a deserted planet that can be reached on impulse power.

I, Captain Olin, plan to take a landing party to the Planet Natura.

Question: What 5 things should the landing crew look for to help them decide whether life can exist on this planet? (Compare your answers to this and all StarDate questions to answers in ShareNet at *Curriculum, Science 4-6, Reference*, "Ask Captain Olin")

After visiting Natura and examining records there, we have determined that the planet was once occupied by a civilization

called Ecoes. The Ecoes, living in harmony with nature, had been on the planet for millions of years. They were invaded by aliens call Pollutos, who used up all the resources on the planet and polluted it so severely that both the original inhabitants and the invaders perished.

Natura's pollution happened hundreds of years ago and the planet has been healing itself since then. We find that the atmosphere on the planet has recovered and there is plenty of oxygen for human life forms to survive. The water, however, is a different matter. There are a few lakes with clean water, but this source is limited. The majority of the water on the planet continues to be polluted.

Our first guess is that the natural rainfall on Natura, as on earth, is replenishing a portion of the water supply.

Question: What things might the Pollutos have done to destroy the water on Natura? (Answers at "Ask Captain Olin")

As we explore Natura, First Officer Lisa Waters questions whether we can survive here, but our crippled ship can not take us any further.

We have found an old book that the Ecoes used to manage their world. Its knowledge agrees with ours, stating that one of the basic elements for life is water and that without water, life is impossible. In fact, as on earth, life began in water. The bodes of living things, the extinct Ecoes as well as humans, are made up mostly of water. Also, as on our home planet, the water on Natura is as old as the planet itself. Every molecule of water is recycled over and over. Natura has the same percentage of usable water as earth.

Question: What percent of the water on earth is usable? (To compare your research answer, see "Ask Captain Olin")

John Green, Environmental Officer, has just come to me with a grave concern. The crew members are, of course, drinking and

bathing in the available water. He estimates that this precious water supply will be exhausted within months if we cannot find a way to treat both the wastewater generated from our crew's use and the existing bodies of polluted water on the planet. But even before we address this task, we must determine whether any of the usage water is actually begin wasted by the crew. Lee Sun, Ship's Chief Engineer, has examined the drinking fountain delivery system which the crew has rigged to siphon usable water from the mountain stream, and he has serious doubts about its efficiency.

Chief Engineer Sun asks you help him determine whether the drinking fountain is wasting our precious water:

Activity #1:

> *Through direct observation, measure the amount of water actually drunk by humans using the fountain delivery system and how much water actually flows down the drain during the drinking time and compare them to judge the Amount wasted. (See Olin Environmental Project Lesson 1, "The Case of the Wasteful Water Fountain", on ShareNet at Curriculum, Science 4-6)*

I have asked Science Officer Tom Silver to explain to you and the other Senior Officers how water is naturally recycled so that we may understand what is needed to successfully treat polluted water.

Commander Silver: "Like our home planet, Natura is NOT running out of water. The actual amount of water on both planets remains constant, but it is entirely possible to run out of USABLE water.

First I will explain the water cycle, also known as the hydrologic (hy dro loj' ik) cycle. The hydrologic cycle is tremendously powerful, using more energy in only one day than humankind has generated throughout all of history on planet earth.

At one time, only about .005 percent of the total water supply on earth is moving through the hydrologic cycle. A drop of water spends about nine days passing through the air; once it falls as precipitation (rainfall), it may remain in a glacier for 40 years. A water molecule may remain in the ocean for 40,000 years before being cycled, but eventually, every drop of water on Earth is moved through the hydrologic cycle and is used over and over and over again.

"The water cycle on Natura, as well as Earth, starts from water vapor gathering in clouds. Wind cools the vapor, turning it into a liquid (rain) or a solid (snow, hail and sleet). Gravity makes the rain fall to the planet's surface. Some water runs across the land into bodies of surface water - lakes, streams, oceans, etc. Other water soaks into the ground, pulled by gravity through layers of different materials in a process called "percolation" (per co la' shun). Percolated water is stored in the ground in "aquifers" (ah'kwa furz), which are layers of rock, gravel and sand. This water slowly moves through the aquifer toward the sea. Eventually, ground water becomes surface water, too. For example, it may bubble up through the ocean floor, or appear on the land as a spring. The sun heats surface water, turning it into vapor that rises into the sky. And the cycle begins again! The sun is the "pump" that keeps water going around and around.

The polluted water generated by your crew, as well as Natura's existing polluted bodies of water, will eventually be cleaned by nature. But our crew cannot wait the potentially hundreds of years that would take.

The Ecoe's book explains the ancient art of wastewater treatment. Wastewater treatment speeds up the natural treatment process. We must learn this lost skill if our crew is going to survive.

Before wastewater can be treated, it must be collected. The most efficient method is collection by gravity. Since Natura has

approximately the same gravity as earth, this collection method can be used. In cases where the land is too flat for gravity to move the water, or when the water must go above the land level, a pump can be used to transport the wastewater to the treatment area.

Once the wastewater has been collected, the treatment begins. Wastewater treatment consists of physical, biological and chemical processes. The wastewater is either removed by filtration (primarily treatment), which I will explain, or consumed by bacteria as its food source (secondary treatment), which will be described by Doctor Crystal.

The first step in primary treatment will be removing large solids from the wastewater. This can be done by placing a metallic screen at the beginning of the wastewater treatment process to catch the large solids as wastewater passes through. These solids will have to be removed periodically to keep the filter from plugging.

Because of damage to the ship's computer by the meteor shower, we cannot run a diagnostic of this process the Ecoes described to determine its efficiency. Therefore, the captain has approved my request to assemble a team to physically test whether the basics of the Ecoe's procedure for restoring dirty water actually works. You are included on that team..."

Activity #2

> *Demonstrate basic water treatment using dirty (muddy) water passing it through a funnel and producing clean water. (See Olin Environmental Project Lesson 2, "Dirty Water Comes Clean", on ShareNet Curriculum, Science 4-6)*

"The second step in the treatment process is a grit chamber where heavy materials that might damage equipment or interfere with later processing are removed from the wastewater. The speed of the flow of the wastewater is decreased as wastewater moves

through a sedimentation tank. Solids sink to the bottom of this tank in a process called 'precipitation' (pre-cip-i-ta'-shun) in which heavier particles fall out of a liquid to the bottom. They are then removed. This mass of solids is now called sludge (slu'j). Again, gravity is used to separate the grit from the wastewater.

The third step is the settling tanks. In these tanks additional heavy solids will settle to the bottom, and are also removed as sludge.

The Ecoes refer to the first three treatment process as 'primary treatment'. In the first three treatment methods only gravity, a physical force, is used to separate various sized waste particles.

As Medical Officer, Dr. Aleeta Crystal will explain the largely biological process of secondary treatment."

Dr. Crystal: "The next major treatment the Ecoes have recorded is 'secondary treatment', in which biological and/or chemical process are used to treat the wastewater.

Biological treatment processes use bacteria to remove solids from the wastewater. The bacterium actually eats the organic solids, settles to the bottom of a tank, and the solids (which consist of the well fed bacteria and their food) are collected as sludge. The water remaining is clear and can be returned to a stream. On Natura as well as on Earth, bacteria are abundant. Bacteria are usually associated in our minds with diseases, however the Ecoes have found that on Natura, like Earth, only two percent of all the bacteria is harmful and all the rest perform useful or crucial functions, such as these "house cleaning" actions of eating things that would otherwise harm us.

In order to use bacteria as a wastewater treatment method, we must provide the right mixture of oxygen and food. The Ecoes knew that bacteria are more efficient when oxygen is mixed at the ideal concentration so they can live, multiply and eat.

The bacteria are key to the three major biological treatment process ; activated sludge, trickling filters and lagoons.

Activated sludge is a treatment method where wastewater, microorganisms (bacteria), and oxygen are added together in a tank. Air is pumped into the wastewater in a process called "aeration" (air a' shun). During aeration microorganisms absorb oxygen and eat the organic material. After a few hours, the wastewater is piped to another sedimentation tank to remove the remaining solids. The solids (which are the bacteria and all they've eaten) settle to the bottom of the tank and are removed as sludge.

Trickling filters distribute the wastewater over a bed of small solid objects called 'media' which may be rocks, plastic, wood or aluminum cans. The solid media is approximately 0.4 to 1.8 meters deep. As the wastewater flows over the solid media, the wastewater is aerated and the microorganisms form a biological growth layer in which they live while they consume most of the organic material in the wastewater. The growth layer (which consists of well-fed microorganisms and which is thick and easy to see) eventually falls off the solid media and is collected, again, as sludge. A new growth layer will grow to replace it.

In Lagoon wastewater treatment, pollutants are broken up through the use of various microorganisms. The lagoons are usually 1 to 1.5 meters deep. This process uses sunlight, algae, microorganisms and oxygen to remove organic material and nutrients from the wastewater. There are two types of microorganisms used in lagoon treatment: aerobic (ai 'ro bik) (microorganisms that use oxygen in the process of consuming the pollutants), and anaerobic (an ai 'ro bik) bacteria which eat different pollutants and release nitrogen and phosphorus which feed algae, in turn replacing oxygen used up by the aerobic bacteria. Because these have opposite effects on oxygen, they create a balanced action.

The final treatment process is disinfection. This process kills disease-causing organisms by addition of a disinfectant chemi-

cal such as chlorine. Ultraviolet light rays can also disinfect wastewater.

The wastewater could now safely be discharged to local surface waters, and the Destiny crew's water problems would be over."

Captain's Log:

Doctor Crystal has come to me with a report of numerous bacteria-caused illnesses developing among crew members stationed in the field on this planet, but not among those who remain aboard the Destiny. It is her opinion that because the ship has no extra power to run their diagnostic tricorders when they are out on the planet's surface, crewmembers are guessing at what water is safe to drink, basing their decision only on appearance.

I directed our Medical Officer to call together all crew members and instruct them that very small amounts of some pollutants are still hazardous to their health, that judgements of water quality made through their senses are unreliable, and that they must bring all samples on board to the medical lab for analysis.

I am including her instructions here.

Activity #3

> *Demonstrate simple water purity test consisting of 5 glasses of water filled with common household liquids such as weak tea, coffee, mixture of food coloring in water, water and suspended mud and add one or two drops of gasoline to water. Ask students which water samples appear to be pure. (See Olin Environmental Project Lesson 3, "Dirty Water Comes Clean", on ShareNet at Curriculum, Science 4-6.)*

Activity #4

> *Demonstrate serial dilution using three glass beakers with different concentration of diluted food coloring. Making*

> *serial dilutions can help students grasp the concept of minute concentrations of pollutants. By beginning with a known volume of a pollutant (one milliliter), and using a factor of ten for each dilution step, a concentration of parts per million can be completed in three steps. The student can determine if color is still visible at one part per million. (See Olin Environmental Project Lesson 4, "Safe Water: What You See Is NOT What You Get!", on ShareNet at Curriculum, Science 4-6).*

A final entry from First Officer Lisa Waters:

"The Ecoes warn that the sludge generated from the treatment process is hazardous and must itself be treated in order to complete the treatment cycle.

The first step in sludge treatment is to remove the water from the solids. This is done by gravity. Chemicals are also added to kill disease-causing organisms. The sludge will eventually be 'stabilized' (no more dangerous pollutants will exist in it) and turn into harmless organic matter. This material can be placed into a landfill, deposited into the ground or composited to be used as a fertilizer or soil conditioner.

The Ecoes also mentioned that there were smaller forms of wastewater treatment for Ecoes or humanlife living in rural areas. These treatment processes are called septic Tanks, Leach Fields and Sand Filters.

Septic Tanks separate the solids from the liquid. The solids collect on the bottom the [sic] tank and are parochially pumped out to a community treatment facility or an approved disposal site. The practically treated wastewater is piped to a leach field. The wastewater pumped to the leach field and is allowed to seep through the soil. The soil acts like a filter and removes bacteria and nutrients in the wastewater. The microorganisims in the soil purify the wastewater.

Sand filters are used in soon [sic] areas were [sic] water tables are high on the soils and do not allow the water to pass through them easily. Sand and gravel are mounded on top of natural soil to filter wastewater received from septic tanks before the wastewater reaches the natural soil.

This information will be crucial to us if we are not rescued soon and the Destiny's personnel and their families actually have to establish a colony here."

Captain's Log

Our most serious problem, the need to preserve and enlarge Natura's usable water, is well on its way to being solved.

I commend you and your crew members for your courage and excellent work.

Special Assignment from the Captain:

In order to survive on this planet, our crew must construct a wastewater treatment plant from the equipment in your damaged ship. You now have the basic information from the Ecoes treatment book: Your project is to draw a sketch of a wastewater treatment facility. Start with the collection system and take it all the way to sludge treatment.

For further information, go to ShareNet at Curriculum, Science 4-6, Reference, "Ask Captain Olin".

If you wish to do this project, you may ask at "Captain Olin" for your own Olin Mentor.

Olin Environmental Project

Water

Lesson 1:

The Case of the Wasteful Water Fountain

StarDate 2220: Chief Engineer Sun, of the disabled Starship Destiny, asks our help in determining whether the crew is wasting precious water by using a fountain.

GRADE LEVEL: 5

OBJECTIVES:

Students will predict and measure the average amount of clean water used to drink at a drinking fountain, and compare amount actually consumed with amount wasted.

INTRODUCTION:

After studying the water cycle (lecturette in the StarDate 2220 Narrative "Not A Drop To Drink"), students will be aware that there is a limited freshwater supply. This activity is designed to develop student awareness of: how much water is used during an activity as routine as getting a drink from the drinking fountain; relative efficiencies of one water delivery system over another (e.g.: fountain vs. cup use); and the benefit and drawbacks of each system (waste of water in fountain delivery vs. environmental problems of paper cups and infection control issues of reusable cups).

MATERIALS:

- Stopwatch
- 500 ml beakers
- two large containers (small buckets)
- calculators
- drinking glasses with ounces marked

PROBLEMS/CAUTIONS:

More accurate results will be obtained if students who are to be observed in this project do not know what researchers are watching for. Have "fountain watchers" try to position themselves out of the way and watch from a distance. If other students ask what the researchers are doing, have them reply, "we are studying water use." If students press for more information, researchers may say, "we are just counting. But while we are researching, we're not supposed to talk." Explain that experimental subjects, such as their fellow students, tend to behave differently (in this case, drink longer or shorter times) if they know which of their actions are being observed. The potential of the behavior of the researchers to influence the actions of research subjects is an important piece of information about scientific technique.

PROCEDURE:

1. Explain to the students the procedure for collecting water samples.

   a) Using two separate containers, the students will collect water from their designated drinking fountains by pressing the button all the way down, allowing maximum water flow. One sample will be for 5 seconds and another for 30 seconds.

   b) Assign teams of two students to designated water fountains, one student to depress the button and manage the capture container and the other to keep time.

2. After the water collection is made, the students return to the room and determine, in milliliters, the amount of water that was collected. After recording their findings the students then find the average amount of

water that is released from the drinking fountain. (Other teams could be sent out to double check the first teams findings, or those students not collecting the water could re-check the volume of the amount collected.)

3. Ask students to predict the amount of water used per student, per drinking fountain visit.

4. Send the teams out into the school and have them "stakeout" the drinking fountain. One student will record the length of drink with the stopwatch, while the other records the number of students getting a drink at that particular fountain. (For example, Student #1...7 sec., #2...4 sec.) This should be scheduled at a time when students are not coming in from recess, so as to not inflate the results. Scheduling could be arranged at different times of the day. (For example, team #1 9:00-9:30, team #2 9:30-10:00, team #3 1:30-2:: etc.)

5. With your results, find the average length of drink (this could be done per individual fountain), and then multiply that number times the number of students drinking during the time measured (1/2 hour). Multiply this times the number of 1/2 hour segments of a school day to calculate the average amount of water used in at a drinking fountain.

6. Waste measurement: Student researchers measure the amount actually drunk by ten different students drinking from glasses instead of the fountain. (Note: These students are offered their water in a glass, on which ounces have been marked, when they arrive at the fountain. They are told to drink only what they want. The duration of their drinking is measured in seconds and amount drunk per student is then calculated and

averaged among all glass drinkers.) These amounts are then averaged into a standard amount consumed. Researchers then collect the water expended by each fountain in the school, running fully open, during ten second intervals. This amount is averaged into a standard volume per second. The difference between the two is freshwater wasted.

EVALUATION:

Ask the students: What is the average amount of water used? How does their prediction compare? What are some possible explanations for the difference between their prediction and the actual results? Is freshwater for drinking efficiently conserved by the fountain delivery system? Why or why not?

Explore the alternatives. Students should consider the cost and distribution/waste management aspects of disposable cups. They should research the infection control issues brought up by the use of re-usable cups, their expense, energy use to heat water for washing and time involved. Compare and contrast. Which choice is most environmentally sound? What are their benefits and drawbacks?

EXTENSIONS:

Using the volume average of fountain output already established in the main research protocol, students measure the number of drinkers at all fountains in a standard hour and calculate the total consumption for the whole school in one day? What would be total volume? For the town? What are other necessary activities that require clean freshwater? Are there any that could use recycled water?

SOURCE:

Olin Curriculum Design Teacher Team
The Olin Project on Environmental Science
Sponsored by: Olin Defense Systems
Lake City Army Ammunition Plant
Independence, MO

Olin Environmental Project

Water

Dirty Water Comes Clean

PROCEDURE:

1. Cut the plastic bottle in half. Using a rubber band place the nylon screen material over the mouth of the bottle and secure around the bottle's neck with a rubber band.

2. Push the cotton ball into the neck of the bottle from the inside and invert the bottle so the mouth is pointing down. Place it into the other half of the bottle so the bottom half acts as a catcher for the liquid as it runs through the filter. With the ground up charcoal and sand, alternate layers of approximately 1 - 1.5 cm in thickness over the cotton ball starting with the sand, then the charcoal, then more sand, etc.

3. In a 500 mi beaker, add the 100 mi of soil to 400 mi of water and stir. Add a few drops of food coloring and the vinegar. Mix thoroughly and find the mass of the mixture on the balance and record.

4. After finding the mass, make sure the contents are mixed well and pour into the charcoal and sand filter. When all of the muddy mix has been emptied out, place some plastic wrap over the top of the filter and secure with a rubber band.

5. Let contents filter overnight.

6. Remove plastic wrap and the top half of the filter to remove the filtered water. Pour into 500 mi beaker and find the mass of the filtered mixture. Record mass and observations.

EVALUATION:

The following questions will help students make their observations:

1. What physical changes have taken place in the filtration? Consider clarity and color of the water.

2. Has the smell of the water changed? What in the filter could have been responsible for this change?

3. If filtered again, what will happen to the water?

EXTENSIONS:

1. Try making a filter with other materials (called in water purification a different "medium") such as small pebbles, crushed limestone, or different types of soils. Try testing other water traits like pH and other liquids mixed in for smell or clarity. What conclusions can be drawn about how to reduce water pollution?

2. Water that is not potable (safely drinkable) is often also dangerous to many plant and animal species for whom it is home. What are some life forms that may be destroyed by contaminated water?

SOURCE:

Olin Curriculum Design Teacher Team
The Olin Project on Environmental Science
Sponsored by: Olin Defense Systems
Lake City Army Ammunition Plant
Independence, MO

Olin Environmental Project

Water

Lession 3

Contamination: It Can Be One In A Million

StarDate 2220: First Officer Waters reporting:

The Starship Destiny Away Team has been working with Medical Officer Aleeta Crystal to reduce crew member sickness from drinking contaminated water. To be certain the crew is fully aware of the need to avoid drinking water that has not been analyzed in the Destiny's on-board laboratories, I am asking each of you to perform the following experiment.

GRADE LEVEL: 5

OBJECTIVES:

The student will define parts per million and parts per billion.

INTRODUCTION:

Parts per million or parts per billion is a measurement of the dilution of a chemical that is in minute concentrations. This analytical process can be used to test such things as ground water for contamination. As pollutants are absorbed into the soil, they are greatly diluted with rainwater. Even toxins in great dilution, in which only very small amounts of the toxin remain in a great amount of clean water, can still be dangerous to living things. Its detection and measurement can be determined and quantified in the small parts we call parts per million and parts per billion.

MATERIALS:

- Red or Blue food coloring
- Water
- 5 clear containers (glass beakers or jars)
- Dropper

PREPARATION:

Tell the students that even though they cannot see any evidence of pollution in water, this does not mean that it is not present. Pollutants in our ground water are measured in parts per million and parts per billion. Even very small amounts can be hazardous. Some examples of what these numbers mean are:

"One Part Per Million" (1 ppm) - Is equal to: one step on a walk (north to south) across Minnesota; one second in 11.7 days; a pitcher of tea in an olympic size swimming pool; a bucket of sand (1.5 Liters) in a football field 1 foot deep.

"One Part Per Billion" (1 ppb) - Is equal to: one step on a journey nineteen times around the earth (at the equator); one second in 32 years; a marble in a football field 1 foot deep; one drop in a full railroad tank car or one drop in a full olympic size swimming pool.

Remember:

There are one thousand times one thousand in one million 1,000 x 1,000 = 1,000,000

There are one thousand times one million in one billion 1,000 x 1,000,000 = 1,000,000,000

PROCEDURE:

1. With the dropper, put 9 drops of water into a clear container and label it "A". Add one drop of food coloring to it and stir. This represents a dilution of 1/10. Rinse the dropper after each use with water so as to not contaminate the experiment by exceeding the correct amount of dilution.

2. With the dropper, put 9 drops of water in another container. Add one drop of the mixture from "A" to it and mix. Label this one "B". The food coloring in container "B" is now diluted to 1/100.

3. Continue this procedure with the other containers, labeling them appropriately and placing 9 drops of water in each, followed by one drop from the previous container.

4. Container "C" will represent 1/1,000 dilution. "D" is 1/100,000. "E" is finally the representation 1/1,000,000 or one part per million.

5. Question students: At what point can you no loner see any trace of the color? If the color had been a deadly toxin, at what point would you no longer be able to protect yourself by visually judging the water purity?

6. To be certain that students don't leave this lesson afraid to drink from the kitchen faucet, assure them that their water is tested every day with very sophisticated equipment and chemical detectors that routinely analyze at the level of ppm and ppb.

EVALUATION:

What does *part per million* mean? (One drop of pollutant to one million drops of water.)

What does *part per billion* mean? (One drop of pollutant to one billion drops of water - the full olympic pool.)

EXTENSIONS:

This same demonstration can be done with gasoline instead of food coloring to show that even our smell cannot detect the presence of a chemical. The human threshold for gasoline is about five parts per billion. What kinds of water tests are done to determine the quality of your home water supply? Determine other examples of parts per million.

SOURCE:

Olin Curriculum Design Teacher Team
The Olin Project on Environmental Science
Sponsored by: Olin Defense Systems
Lake City Army Ammunition Plant
Independence, MO

Olin Environmental Project

Water

Safe Water: What You See is NOT What You Get!

StarDate 2220: Dr. Crystal has asked all Starship Destiny crew members to learn about waste contamination so that Away Team members in the field no longer become ill.

GRADE LEVEL: 5

OBJECTIVES:

Students will determine if they can predict water quality by using their sense.

INTRODUCTION:

As an introduction to judging water quality, a visual test can be made to determine some general characteristics of the water, yet it reveals very little in terms of its quality. In our past, sewage was the primary source of water contamination. At the present time, our technology has developed thousands of chemicals that can also be harmful to our health if they make their way into the water supply. Many of these do end up in our water resources and cannot be detected with a visual check or identified through sense of smell.

From this experiment students will learn that appearance is a poor test for determining water quality. For example,

rusty water poses no health hazard, yet appears to be unfit to drink.

This activity should have an impact on children, who will grasp the limits of their senses in detecting water contamination and who will understand how small a contaminate can spoil water quality.

MATERIALS:

- Tea
- Coffee
- Food coloring
- Dirt
- Clear containers that can be sealed for the samples below
- Small amount of gasoline
- Small amount of creek or pond water
- Dishwashing soap (other samples of water can be prepared along these lines)

PREPARATION:

In advance, prepare small samples of the mixtures above to represent different types of water. They should be placed in clear containers and sealed so no odors will influence student predictions. DO NOT ALLOW ANY STUDENTS TO DRINK THE SAMPLES OF WATER!

PROCEDURE:

1. Have the prepared and numbered water samples displayed in front of you so the class can visually see each container. Introduce each one as a mystery sample of water collected around town.

2. Ask students which samples they think represent clean or pure water. Why or why not? Discuss the physical characteristics.

3. Remove the tops of the containers for a closer inspection, allowing for smell to influence and possibly change their predictions.

4. Once again ask the students to discuss which samples may be clean or drinkable ("potable") water. Why or why not?

5. Discuss appearance as a poor test of the quality of water.

EVALUATION:

What senses can we use in attempting to determine if water is safe to drink? Is the use of our senses a safe way to determine water purity?

EXTENSIONS:

Have students research the effects on humans of drinking the various samples or the effects they might have on the environment. Visit a public water supply plant to observe water testing. Ask a high school chemistry teacher or chemist to visit your classroom to discuss water quality with your students. Ask the Infection Control Nurse from you area hospital to visit and discuss water from a disease prevention point of view. Research effect on campers and hikers who drink "clear" mountain stream water and become sick from the bacteria, or travelers to other countries who become ill from the water there.

SOURCE:

Olin Curriculum Design Teacher Team
The Olin Project on Environmental Science
Sponsored by: Olin Defense Systems,
Lake City Army Ammunition Plant
Independence, MO

Adapted by: Missouri Department of Natural Resources
Groundwater Protection Curriculum Guide pp 39-41.

The University of Kansas ShareNet Partnership Project
(results) July, 1992

Olin Environmental Project

The Olin Project for Environmental Science
Spring Water Quality Project, 1993

Update from the Olin Environmental Project's Teacher Participants

Written by Wallie Winholtz, Lead Teacher

Spring Project

Our initial project includes the following water quality tests: Dissolved Oxygen, pH and temperature measurement, and study of the benthic macroinvertebrates. So as to not reinvent the wheel, many of the procedures we followed for data collection came from the *Field Guide for Water Quality Monitoring. An Environmental Education Programs for Schools* by Mark K. Mitchell and William B. Stapp. Their procedures have been tried and proven to be reliable and have been the basis for many water projects across the country.

Before going out to conduct our tests, the teachers involved became familiar with the testing on a weekend outing to a local stream. To prepare the students for the data collection proce-

dures, each separate test was discussed and practiced in the classroom using tapwater collected from students' homes. This made our use of time in the field more efficient.

Data Collection Procedures - Dissolved Oxygen

The following is a description of some general information about collecting a sample of water for testing dissolved oxygen.

Because dissolved oxygen (DO) levels vary so much according to time, weather, and temperature, this test should be run during the same period (week and time of day), if yearly comparisons are to made [sic].

It is best to sample away from shore and below the water surface. In a free-flowing river or stream with good mixing, samples taken beneath the surface in the current should be a representative sample. In slow moving water, it is best to sample away from shore and at various depths. Remember to test for DO immediately after securing the sample. For specific testing procedures, follow the instructions that come with your particular test kit.

The lowest DO amount (mg/L) at which fish survive for 24 hrs. (summer) are Black Bass 6.0, Yellow Perch 4.2, and Black Bullhead 3.3 Examples of macroinvertebrates that cannot tolerate low levels of DO are mayfly nymphs, caddisfly larvae, and beetle larvae. Examples of pollution-tolerant organisms are worms and fly larvae. You might also find nuisance algae and anaerobic organisms surviving at low DO levels.

pH

The following are some important things to remember about testing for pH.

A water sample that is less than 7 is said to be "acidic" and a reading over 7 is "basic". It is important to realize that for every one unit change on the pH scale, there is approximately a ten-fold change in how acidic or basic the sample is. For example, a

reading of 4.3 is approximately ten times more acidic than a reading of 5.0-5.6 and a pH of 4 is about 100 times more acidic than a pH of 6. If the stream contains a lot of limestone, it may neutralize the effects of acids.

An extremely high or low pH makes the water unsuitable for most organisms. In lakes, a pH below 5 is a serious problem. Very acidic waters can cause heavymetals, such as copper and aluminum, to be released into the water. Heavy metals can accumulate on the gills of fish or cause deformities in young fish.

Like DO, the sample collected should be done away from shore and below the surface. The sample should be measured immediately, because the temperature can affect the pH value. If many samples are tested, the most frequently reported pH value should be used rather than the average value. Please follow the testing instructions found with your test kit.

Limiting pH Values:

Min.	Max.	Effects
3.8	10.0	Fish eggs could be hatched, but deformed young possible.
4.0	10.1	Limits for the most resistant fish.
4.1	9.5	Range tolerated by trout.
4.3		Carp died in 5 days.
4.6	9.5	Limits for Perch.
5.0	9.0	Tolerable range for most fish.
8.7		Upper limit for good fishing waters.
6.0	7.2	Optimum range for fish eggs.
1.0		Mosquito larvae were destroyed at this pH value.
7.5	8.4	Best range for the growth of algae.
2.0	13.0	Bacteria
7.0	8.5	Largest variety of Macro Invertebrates.

Temperature

The temperature of a river or stream is very important for water quality. It can directly influence:

1. the amount of oxygen dissolved in the water
2. the rate of photosynthesis by algae and other aquatic plants
3. the metabolic rates of aquatic organisms
4. the sensitivity of organisms to toxic wastes, parasites, and diseases.

Remember, cool water can hold more oxygen than warm water, because gases are more easily dissolved in cool water. Change in temperature can be caused by industries introducing warmer water to the stream, storm water runoff of warm urban surfaces, lack of shade on the stream due to cutting down trees, and suspended solids caused by soil erosion.

As the temperature rises, the rate of photosynthesis and plant growth also increases. More plants grow and more plants die. Decomposition by bacteria consumes more oxygen. The metabolic rate of the organisms rises with an increased temperature, thus a higher demand for oxygen. Life cycles of aquatic organisms speed up and can cause problems for birds that feed on certain organisms emerging at specific periods during their migratory flights.

When testing water for temperature, lower the thermometer four inches into the water for approximately 2 minutes to obtain a constant reading. Record your measurement. If looking for "thermal" pollution, also take a reading approximately one mile up stream. Find the difference in the temperatures to find the temperature change. Record.

Benthic Macroinvertebrates

The variety of aquatic organisms can also contribute to the whole picture of the stream's health. Some organisms are more plentiful in certain environments and sometimes a wide variety of organisms can indicate the waters ability to support life. This can be judged from the information gathered in a survey of organism diversity. Ideally, a survey of macroinvertebrates should be dispersed along the length of a river, so that changes in water quality and shifts in the aquatic community from headwaters to mouth can be noted. Sampling should be done in March/April or late October if only done once or twice a year.

Collecting should be done in a riffle area, i.e. a somewhat shallow area with steady current and rock and gravel bottom. Safety precautions should be taken to protect your skin. Rubber gloves and rubber boots are ideal. Washing hands after sampling is recommended.

There are a variety of ways to collect these tiny organisms. In general, you are looking for a variety of macroinvertebrates to help in determining the stream's health. These can be collected by turning over rocks and examining the undersides for the organisms or using a variety of nets to catch them as you stir up the substrate. Make sure the net is downstream from the area being disturbed and the organisms will flow into the net and be lifted from the water where the collection can take place.

Examples of pollution-sensitive organisms are mayflies, stoneflies, some caddisflies, riffle beetles, and hellgramites.

Examples of pollution-tolerant organisms are aquatic worms, leeches, and certain midge larva.

Methods can be found for collecting these organisms and using other water quality testing measures in Mitchell and Stapp's *Field Guide for Water Quality Monitoring.*

1990 Census Basic Tables for Missouri Counties

37. Gasconade County.
38. Gentry County.
39. Greene County.
40. Grundy County.
41. Harrison County.
42. Henry County.
43. Hickory County.
44. Holt County.
45. Howard County.
46. Howell County.
47. Iron County.
→ 48. Jackson County.
49. Jasper County.
50. Jefferson County.
51. Johnson County.
52. Knox County.
53. Laclede County.
54. Lafayette County.

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1 MISSOURI STATE CENSUS DATA CENTER
1990 SUMMARY TAPE FILE 3 EXTRACT REPORT

STATE	→	MO
GEOCODE	→	29095
AREANAME	→	Jackson County

XP1. GENERAL POPULATION

TOTAL PERSONS/PERCENT SAMPLED	633,232	13.3%
PER SQUARE MILE/LAND AREA	1047.16	604.71
FEMALES	332,302	52.5%
LIVING IN RURAL AREAS/ ON FARMS	22,003	1,277
LIVING IN FAMILIES/ALONE	520,252	73,787
LIVING IN GROUP QUARTERS	11,302	1.8%

XP2. PERSONS BY RACE/HISPANIC

WHITE	478,889	75.6%
BLACK	135,696	21.4%
ASIAN & PACIFIC ISLANDER	5,917	0.9%
AMERICAN INDIAN, ESK., ALEUT	3,417	0.5%
HISPANIC (ANY RACE)	18,689	3.0%

XP3. PERSONS BY AGE

0-4 / PCT / CUM PCT	48,054	7.6	7.6
5-9	46,977	7.4	15.0
10-13	33,795	5.3	20.3
14-17	32,007	5.1	25.4
18-24	60,534	9.6	35.0
25-34	117,234	18.5	53.5
35-44	92,551	14.6	68.1
45-54	64,023	10.1	78.2
55-59	27,744	4.4	82.6
60-64	27,682	4.4	86.9
65-74	46,438	7.3	94.3
75-84	26,431	4.2	98.5
85 AND OVER	9,762	1.5	100.0
UNDER 20	177,836	28.1	
20-39	210,396	33.2	
40-64	162,369	25.6	
65 AND OVER	82,631	13.0	
MEDIAN AGE	33.2		

XP4. HOUSEHOLDS BY SITE

TOTAL HOUSEHOLDS/ AVERAGE SITE	252,202		2.47
1 PERSON/1 PERSON OVER 65	73,787		27,684
PCT HHS: 2 PERSONS / 3-4 / 5+	31.5%	30.0%	9.3%

XP5. HOUSEHOLDS BY TYPE

FAMILIES/PCT OF ALL HOUSEHOLDS	165,847	65.8%
MARRIED COUPLES/PCT OF FAMILIES	124,172	74.9%
WITH OWN CHILDREN < 18	55,581	33.5%
FEMALE HOUSEHOLDER (NO HUSB)	34,265	20.7%
WITH OWN CHILDREN	20,458	12.3%
NON-FAMILY HOUSEHOLDS	86,355	34.2%

XP6. HOUSEHOLD INCOME 1989

LESS THAN $10,000/PCT/CUM PCT	41,598	16.5	16.5
$10,000 - $14,999	23,495	9.3	25.8
$15,000 - $24,999	47,243	18.7	44.5
$25,000 - $34,999	42,874	17.0	61.5
$35,000 - $49,999	46,204	18.3	79.9
$50,000 - $74,999	34,994	13.9	93.7
$75,000 - $99,000	9,127	3.6	97.4
$100,000 AND OVER	6,667	2.6	
MEDIAN/AVERAGE	$27,853		$34,129

XP7. FAMILIES BY # WORKERS
COUNT/AVG FAMILY INCOME 1989

0 WORKERS	20,756	$20,113
1 WORKER	46,576	$30,280
2 WORKERS	77,712	$46,575
3+ WORKERS	20,803	$57,703

XP8. OTHER INCOME MEASURES

MEDIAN/AVG FAMILY INCOME	$34,300	$40,083
PER CAPITA INCOME/NON-GRP QTRS	$13,712	$13,865
PERSONS BELOW POVERTY LEVEL	81,142	13.0%
PERSONS BELOW 50% OF POVERTY	40,897	6.6%

XP9. LEVEL OF EDUCATION

TOTAL PERSONS AGE 25+	41	
1,865 100% IN%"net-resources@is.internic.net"		
LESS THAN 9TH GRADE	27,120	6.6%
9TH TO 12TH GRADE, NO DIPLOMA	57,344	13.9%
HIGH SCHOOL GRAD. (OR EQUIV)	134,837	32.7%
SOME COLLEGE, NO DEGREE	88,698	21.5%
ASSOCIATE/BACHELOR'S DEGREE	76,632	18.6%
GRADUATE OR PROFESSIONAL DEGREE	27,234	6.6%

XP10. UNEMPLOYMENT: CIV LAB FORCE

TOTAL CLF: UNEMPLOYED/RATE	21,675	6.6%
FEMALE: UNEMPLOYED/RATE	9,240	5.8%

XP11. OCCUPATION

TOTAL EMPLOYED PERSONS AGE 16+	309,069	100%
MANAGER. & PROF. SPECIALTY OCC	78,255	25.3%
TECH, SALES, ADMIN. SUPPORT	110,984	35.9%
SERVICE OCCUPATIONS	43,033	13.9%
FARM, FORESTRY, FISHING	2,430	0.8%
ALL OTHERS	74,367	24.1%

XH1. GENERAL HOUSING UNITS

TOTAL UNITS / OCCUPIED UNITS	280,729		252,582
% UNITS:OWNER OCC/RENTED/VACANT	55.2%	34.8%	10.0%
SINGLE-FAMILY UNITS	190,896		68.0%
IN BUILDINGS WITH 5+ UNITS	58,108		20.7%
CONDOMINIUMS/MOBILE HOMES	6,291		3,362

XH2. YEAR STRUCTURE BUILT

MEDIAN YR BUILT/DECADE MOST BLT	1960	PRE 1940
BUILT IN BUSIEST DECADE	64,580	23.0%
BUILT 1985-MARCH 1990	22,903	8.2%
BUILT 1939 OR EARLIER	64,580	23.0%

XH3. HOUSING VALUES AND RENTS

SPEC. OWNER-OCC UNITS/ AVG VALUE	139,475	66,735
UNITS PAYING CASH REN/ AVG RENT	94,039	$413
MEDIAN HOME VALUE/ MEDIAN RENT	$58,000	$402

Press <RETURN> to continue, <m> to mail:

→ 1. 1990 Census Basic Tables for MO Congressional Districts/
New mail on node BOS1C from IN%"guest@bigcat.missouri.edu"
3. 1990 Census Basic Tables for Missouri House Districts/
4. 1990 Census Basic Tables for Missouri Places/
5. 1990 Census Basic Tables for Missouri Senate Districts/
6. 1990 Census Basic Tables for Missouri Tracts/BMAs/

Press ? for Help, q to Quit, u to go up a menu
Retrieving Directory..-

Internet Gopher Information Client v1.11

1990 Census Basic Tables for MO Congressional Districts

1. MO CONGRESSIONAL DISTRICT 1.
2. MO CONGRESSIONAL DISTRICT 2.
3. MO CONGRESSIONAL DISTRICT 3.
→ 4. MO CONGRESSIONAL DISTRICT 4.
5. MO CONGRESSIONAL DISTRICT 5.
6. MO CONGRESSIONAL DISTRICT 6.
7. MO CONGRESSIONAL DISTRICT 7.
8. MO CONGRESSIONAL DISTRICT 8.
9. MO CONGRESSIONAL DISTRICT 9.
10. $DIRCTRY.

Press ? for Help, q to Quit, u to go up a menu Receiving Information..-

1 MISSOURI STATE CENSUS DATA CENTER
1990 STF3 EXTRACT REPORT:
MISSOURI CONGRESSIONAL DISTRICTS

STATE	→	MISSOURI
GEOCODE	→	04
AREANAME	→	MO CONG DISTRICT 4

XP1. GENERAL POPULATION

TOTAL PERSONS/PERCENT SAMPLED	569,220	20.2%
PER SQUARE MILE/LAND AREA	40.99	13887.66
FEMALES	286,498	50.3%
LIVING IN RURAL AREAS/ ON FARMS	347,025	43,334
LIVING IN FAMILIES/ALONE	480,263	49,569
LIVING IN GROUP QUARTERS	25,335	4.5%

XP2. PERSONS BY RACE/HISPANIC

WHITE	542,800	95.4%
BLACK	18,318	3.2%
ASIAN & PACIFIC ISLANDER	2,948	0.5%
AMERICAN INDIAN, ESK., ALEUT	3,023	0.5%
HISPANIC (ANY RACE)	5,966	1.0%

XP3. PERSONS BY AGE

0-4 / PCT / CUM PCT	40,609	7.1	7.1
5-9	42,524	7.5	14.6
10-13	34,298	6.0	20.6
14-17	31,411	5.5	26.1
18-24	58,463	10.3	36.4
25-34	90,366	15.9	52.3
35-44	77,808	13.7	66.0
45-54	58,503	10.3	76.2

55-59	26,141	4.6	80.8
60-64	26,166	4.6	85.4
65-74	45,348	8.0	93.4
75-84	27,947	4.9	98.3
85 AND OVER	9,638	1.7	100.0
UNDER 20	167,865	29.5	
20-39	170,764	30.0	
40-64	147,660	25.9	
65 AND OVER	82,932	14.6	
MEDIAN AGE	33.6		

XP4. HOUSEHOLDS BY SITE

TOTAL HOUSEHOLDS/ AVERAGE SITE	212,243		2.56
1 PERSON/1 PERSON OVER 65	49,569		25,556
PCT HHS: 2 PERSONS / 3-4 / 5+	34.7%	32.3%	9.7%

XP5. HOUSEHOLDS BY TYPE

FAMILIES/PCT OF ALL HOUSEHOLDS	156,582	73.8%
MARRIED COUPLES/PCT OF FAMILIES	135,652	86.6%
WITH OWN CHILDREN < 18	62,989	40.2%
FEMALE HOUSEHOLDER (NO HUSB)	16,227	10.4%
WITH OWN CHILDREN	10,260	6.6%
NON-FAMILY HOUSEHOLDS	55,661	26.2%

XP6. HOUSEHOLD INCOME 1989

LESS THAN $10,000/PCT/CUM PCT	39,839	18.8	18.8
$10,000 - $14,999	26,043	12.3	31.0
$15,000 - $24,999	48,324	22.8	53.8
$25,000 - $34,999	36,794	17.3	71.1
$35,000 - $49,999	34,041	16.0	87.2
$50,000 - $74,999	19,496	9.2	96.4
$75,000 - $99,000	4,621	2.2	98.5
$100,000 AND OVER	3,084	1.5	
MEDIAN/AVERAGE	$23,065		$28,599

XP7. FAMILIES BY # WORKERS
COUNT/AVG FAMILY INCOME 1989

0 WORKERS	21,338	$17,757
1 WORKER	42,482	$26,298

→ 4. 1990 Census Basic Table for Missouri Places/
5. 1990 Census Basic Tables for Missouri Senate Districts/
6. 1990 Census Basic Tables for Missouri Tracts/BNAs/

Press ? for Help, q to Quit, u to go up a men Retrieving Directory..-
Internet Gopher Information Client v1.11

1990 Census Basic Tables for Missouri Places

1. A/
2. B/
3. C/
4. D/
5. E/
6. F/
7. G/
8. H/
9. I/
10. J/
→ 11. K/
12. L/
13. M/
14. N/
15. O/
16. P/
17. Q/
18. R/

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Internet Gopher Information Client v1.11

K

1. Kahoka city.
→ 2. Kansas City city.
3. Kearney city.
4. Kelso town.
5. Kennett city.
6. Keytesville city.
7. Kidder city.
8. Kimberling City ci.
9. Kimmswick city.
10. King City city.
11. Kingdom City villa.
12. Kingston city.
13. Kingsville city.
14. Kinloch city.
15. Kirksville city.
16. Kirkwood city.
17. Knob Noster city.
18. Knox City city.

Press ? for Help, q to Quit, u to go up a menu Receiving Information..-

1 MISSOURI STATE CENSUS DATA CENTER
1990 STF3 EXTRACT REPORT: MISSOURI PLACES

COUNTY	→	JACKSON
GEOCODE	→	29-2220
AREANAME	→	Kansas City city

XP1. GENERAL POPULATION

TOTAL PERSONS/PERCENT SAMPLED	435,141	13.3%
PER SQUARE MILE/LAND AREA	1397.01	311.48
FEMALES	228,707	52.6%
LIVING IN RURAL AREAS/ON FARMS	1,630	222
LIVING IN FAMILIES/ALONE	346,853	56,737
LIVING IN GROUP QUARTERS	8,983	2.1%

XP2. PERSONS BY RACE/HISPANIC

WHITE	290,898	66.8%
BLACK	128,843	29.6%
ASIAN & PACIFIC ISLANDER	4,903	1.1%
AMERICAN INDIAN, ESK., ALEUT	2,240	0.5%
HISPANIC (ANY RACE)	16,819	3.9%

XP3. PERSONS BY AGE

0-4 / PCT / CUM PCT	33,436	7.7	7.7
5-9	31,179	7.2	14.8
10-13	21,944	5.0	19.9
14-17	21,090	4.8	24.7
18-24	42,521	9.8	34.5
25-34	85,564	19.7	54.2
35-44	63,103	14.5	68.7
45-54	42,461	9.8	78.4
55-59	18,372	4.2	82.7
60-64	19,166	4.4	87.1
65-74	32,130	7.4	94.4
75-84	17,763	4.1	98.5
85 AND OVER	6,412	1.5	100.0
UNDER 20	119,079	27.4	
20-39	151,116	34.7	
40-64	108,641	25.0	
65 AND OVER	56,305	12.9	
MEDIAN AGE	32.9		

XP4. HOUSEHOLDS BY SITE

TOTAL HOUSEHOLDS/ AVERAGE SITE	177,157	2.41	
1 PERSON/1 PERSON OVER 65	56,737	19,195	
PCT HHS: 2 PERSONS / 3-4 / 5+	31.0%	27.8%	9.2%

XP5. HOUSEHOLDS BY TYPE

FAMILIES/PCT OF ALL HOUSEHOLDS	110,206	62.2%
MARRIED COUPLES/PCT OF FAMILIES	77,942	70.7%
WITH OWN CHILDREN < 18	33,698	30.6%
FEMALE HOUSEHOLDER (NO HUSB)	26,668	24.2%
WITH OWN CHILDREN	15,818	14.4%
NON-FAMILY HOUSEHOLDS	66,951	37.8%

XP6. HOUSEHOLD INCOME 1989

LESS THAN $10,000/PCT/CU PCT	31,800	17.9	17.9
$10,000 - $14,999	16,784	9.5	27.4
$15,000 - $24,999	33,988	19.2	46.6
$25,000 - $34,999	29,828	16.8	63.4
$35,000 - $49,999	30,575	17.3	80.7
$50,000 - $74,999	22,866	12.9	93.6
$75,000 - $99,000	6,246	3.5	97.1
$100,000 AND OVER	5,070	2.9	
MEDIAN/AVERAGE	$26,713		$33,510

XP7. FAMILIES BY # WORKERS COUNT/AVG FAMILY INCOME 1989

0 WORKERS	14,456	$19,511
1 WORKER	32,098	$30,057
2 WORKERS	50,115	$46,782
3+ WORKERS	13,537	$57,710

XP8. OTHER INCOME MEASURES

MEDIAN/AVG FAMILY INCOME	$32,969	$39,676
PER CAPITA INCOME/NON-GRP QTRS	$13,799	$13,970
PERSONS BELOW POVERTY LEVEL	65,381	15.3%
PERSONS BELOW 50% OF POVERTY	34,239	8.0%

XP9. LEVEL OF EDUCATION

TOTAL PERSONS AGE 25+	284,971	100%
LESS THAN 9TH GRADE	19,796	6.9%
9TH TO 12TH GRADE, NO DIPLOMA	40,615	14.3%
HIGH SCHOOL GRAD. (OR EQUIV)	85,936	30.2%
SOME COLLEGE, NO DEGREE	60,715	21.3%
ASSOCIATE/BACHELOR'S DEGREE	57,254	20.1%
GRADUATE OR PROFESSIONAL DEGREE	20,655	7.2%

XP10. UNEMPLOYMENT: CIV LAB FORCE

TOTAL CLF: UNEMPLOYED/RATE	16,560	7.3%
FEMALE: UNEMPLOYED/RATE	7,174	6.5%

XP11. OCCUPATION

TOTAL EMPLOYED PERSONS AGE 16+	211,817	100%
MANAGER. & PROF. SPECIALTY OCC	56,218	26.5%
TECH, SALES, ADMIN. SUPPORT	75,139	35.5%
SERVICE OCCUPATIONS	32,018	15.1%
FARM, FORESTRY, FISHING	1,574	0.7%
ALL OTHERS	46,868	22.1%

XH1. GENERAL HOUSING UNITS

TOTAL UNITS / OCCUPIED UNITS	201,773		177,601
% UNITS:OWNER OCC/RENTED/ VACANT	50.1%	37.9%	12.0%
SINGLE-FAMILY UNITS	127,753		63.3%
IN BUILDINGS WITH 5+ UNITS	52,747		26.1%
CONDOMINIUMS/MOBILE HOMES	4,926		2,437

XP2. YEAR STRUCTURE BUILT

MEDIAN YR BUILT/DECADE MOST BLT	1956	PRE	1940
BUILT IN BUSIEST DECADE	55,860		27.7%
BUILT 1985-MARCH 1990	16,450		8.2%
BUILT 1939 OR EARLIER	55,860		27.7%

XP3. HOUSING VALUES AND RENTS

SPEC. OWNER-OCC UNITS/ AVG VALUE	91,741	65,598
UNITS PAYING CASH REN/AVG RENT	73,781	$416
MEDIAN HOME VALUE/MEDIAN RENT	$55,700	$404

Press <RETURN> to continue, <m> to mail:

APPENDIX LL

IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
WESTERN DIVISION

Case No. 77-0420-CV-W-4

KALIMA JENKINS, et al.,
Plaintiffs,

v.

THE STATE OF MISSOURI, et al.,
Defendants.

MOTION OF PLAINTIFFS FOR AN ORDER APPROVING PAYMENT BY THE STATE DEFENDANTS OF FUNDS TO STUDY AND PLAN THREE VIT HIGH SCHOOLS

[Filed: Sept. 29, 1994]

Plaintiffs move this Court to issue an order requiring the State of Missouri defendants to pay to the Metropolitan Community Colleges, of Kansas City, the sum of $225,000, to fund study and planning costs for VIT high schools located one each at the three community colleges in the Kansas City area as detailed in Attachment A, the proposal submitted to the Desegregation Monitoring Committee.

SUGGESTIONS IN SUPPORT OF MOTION

At its September 20, 1994 meeting, the DMC approved a proposal developed by Magistrate Judge Robert Larsen, appointed by this Court to facilitate the development of voluntary interdistrict transfer plans. The proposal, if implemented, would create three VIT high schools, one each at Maplewoods, Penn Valley, and Longview Community Colleges. Each such high school would initially enroll 100 students as ninth graders,

possibly as early as next September. Fifty of those students at each of the VIT High Schools would be minority students from the KCMSD and fifty would be nonminority students from suburban school districts. Eventually, at the beginning of the fourth year of operation when the initial ninth graders had reached twelfth grade, the schools would each enroll 400 students, 200 minority students from the KCMSD and 200 nonminority students from suburban districts.

This motion proposed funding for planning such VIT High Schools, planning to be coordinated by the Metropolitan Community Colleges. To date, according to statements by Magistrate Judge Larsen to the DMC, this proposal has received initial support from the KCMSD, the three community colleges, the Kauffman Foundation, and from the Missouri Department of Elementary and Secondary Education, including active participation by and support from Commissioner Bartman in the informal working group which to date has met to prepare the outline of this VIT High School plan.

That working group has reached agreement on the outlines of the plan and needs now to conduct more formal planning. It is expected that this planning effort will result in a detailed proposal for consideration by this Court next Spring, in time for the plan to be implemented in September, 1995, if sufficient participation by the interested parties is assured.

Plaintiffs request this Court to approve funding for this planning effort. If the initial cooperation of the entities involved in developing this idea continues and the plan comes to fruition, it will afford an important opportunity to advance racial integration for hundreds of KCMSD minority students who have yet to benefit from this Court's 1985 order requiring State of Missouri defendants to develop a meaningful interdistrict transfer program. Six hundred minority high school students attending school outside KCMSD schools in settings equally balanced

between minority and nonminority students, is a possibility that should be seriously studied and developed.

For these reasons, plaintiffs request this Court to issue its order approving the funding for planning VIT High Schools.

Respectfully submitted,

By: /s/ Arthur A. Benson, II
ARTHUR A . BENSON II #21107
DIANNE MORITZ #32921
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Kansas City, Missouri 64106
(816) 842-7603

Attorneys for Plaintiffs

I hereby certify that a copy of the above and foregoing was faxed or mailed, postage prepaid, this 30th day of September, 1994 to:

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Ms. Shirley Keeler (mail)
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555 Thirteenth Street, S.W.
Washington, DC 20004

/s/ Arthur A. Benson II
Arthur A. Benson II

ATTACHMENT A

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September 6, 1994

Confidential

Dr. Eugene E. Eubanks
School of Education
University of Missouri at Kansas City
5100 Rockhill Road
Kansas City, Missouri 64110

Dear Dr. Eubanks:

I am writing to request that the Desegregation Monitoring Committee take action at its September 20, 1994 meeting on the following agenda item concerning voluntary interdistrict transfers advanced by the plaintiff schoolchildren. At the request of Judge Robert E. Larsen, who has taken the lead in developing this project, we ask that the DMC consider this matter in executive session. To that end, I am not sending copies of this letter and ask that the DMC distribute copies to the parties with the DMC's request that the subject matter be kept confidential by the parties.

We request that the DMC take no exception to the proposal to seek by motion from the District Court an order directing the State of Missouri to fund 100%, as is usual in VIT matters, of the $225,000 planning costs associated with efforts to establish VIT

high school programs at Penn Valley, Maple Woods and Longview Community Colleges for opening in September, 1995. Each such program will commence with 100 ninth grade students — one-half minority students from the KCMSD and the other half nonminority students from participating surrounding Missouri school districts. Each year thereafter, as the initial classes advance, 100 new ninth graders will enter each program. The program is intended to start small in order to iron out any unforeseen problems and, within a few years, reach the projected 400 students per school.

The high schools will be located on and operated by the three Community Colleges with the assistance of participating school districts, the Missouri Department of Elementary and Secondary Education, and the Kauffman Foundation. Students who successfully graduate from these schools will have earned some college credits and be given by the program, assistance with funding further educational efforts. The schools at Longview and Maple Woods will be geared toward the students earning post secondary degrees. The school at Penn Valley will focus on educational preparation for work.

Funding of $225,000 is requested for the planning and budgeting of this program, commencing immediately, so that the high school program may open next September. An informal working group has been meeting this summer to outline the proposal and has reached the point where formal and full-time efforts are needed to prepare the detailed pan for final consideration by this Committee and the Court early next year, in time to obtain approval, hire staff, order materials, and recruit students for enrollment next fall. The breakdown of the $225,000 is as follows:

Project director	-	$85,000	(includes fringes)
Secretarial support	-	$30,000	(includes fringes)
Consultants	-	$40,000	
Travel	-	$20,000	
Printing	-	$20,000	
Writers	-	$20,000	
Office Expenses	-	$10,000	
Miscellaneous	-	$8,000	
Office Rental	-	$2,000	

For these reasons, we request that the DMC take no exception to this request that the State of Missouri fund $225,000 in planning costs for the development of the VIT high school program.

Yours very truly,

/s/ Arthur A Benson II
Arthur A. Benson II

/AB

pc: Ms. Kathy Walter-Mack